

1. *Phylogenetic relationships*. The relationships among the taxa were determined using the maximum parsimony method. The analysis was performed using the software package PAUP 4.0 (Phylogenetic Analysis Using Parsimony, version 4.0). The search was conducted using the heuristic method with 1000 random taxon addition and 1000 iterations of branch swapping. The support for the nodes was assessed using the bootstrap method with 1000 replicates. The results were visualized using the software package TreeView 1.6.6 (Treviño et al. 2004).

1

TGTATAATATTATGTTGTCTATATCCAAAAAAGGCCCTCTTTGATTACACTATCAAAGTTACCTCTCCA  
 TTTACATCCCCATTACTATCTCATTAACCTGTTTTATTACATAGCACTTACTACCATCTAAAATGACTTTA  
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 CACTGCTCCTCTCAATCTCAAAATGCTGGGATTACAGGCGTGAGCCACCGCCAGGCCAGAAACATATTTT  
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 TCGGCTCCCAAGTGTGGGATTACAGGTGTGAGCCACTGCGCCCGGCTATTTCTTCTCTCTTGT  
 TAGTTATATCTATTACTCTCATCTATGAACATAACTTGTCTCCCCCTTAATTTTTATCATACAT  
 GATTGTAGACAGTGGGCACTGTCTCAATTATAGTGAATTTAGCAGTAAATTCACATTAGACCAACTGT  
 ATAGTTTAAAAAATATATTTATGTCTAGGTTCCACCTTGACCAACTAAGTCAGAACTTGGGTGGTTT  
 AAGGTTCAATTATCTTTGAAGATAAGATGATGTTTGAATAAAATCTCTGGTATTCTGGTATCAAAAATA  
 CAAATTTGGGACATACTTTTTCTGCTGTAAAAATATTTCTAAGGCCAGGCGCAGTGGCTCAGCCTGT  
 AATCCTAGCACTTTGGGAGACGGAGGCGGAGATCACTTGAGGCCAGGAGTTCAAGACCAGTCTGGCCAA  
 CATGGTGAACCCAGTCTCTACTAAAAATAGAAAAAATAGCCAGGCATGGTGGCAGCTGCCTGTATGCC  
 CAGCTACTCAAGAGGCTGAGGCAGGAGAACTCTTTGAACCCGGGAGGCAGAGTTGCAGTGAGTGATAT  
 TGAGCACTGCCTCAGCCTGGGTGACAGATCAAACTCTGTCTCAGAAAAAAGAAAAAAGAA  
 ATTTCTAGAATTAGAATCGCAGGGGTTTTTTTTGTTTGTGTTGTTGTTGTTGTTGTTGTTTGTGTTT  
 AGAGTTTCACTCCTGTCCGCCAGGCTGGAGTGCAATGCCATGATCTCGGCTCATTGCAACCTCTGCCTC  
 TGAGTTCAAGCAATCTCTGCCTCAGCCTCCCGAATAGCTGGGATTACAGGCACCTGCCACCATGCCCA  
 GCTAATTTTTGTATTTTTAGTAGAGACTGGGTTTTACCATGTTGGCCAGCTGGTCTCGAATCCTGAGC  
 TCAGGTGATCCACCCAGCTCATTTCCCAAGTGTGGAATTACAAGCATGAGCCACTGCCTCGGCTT  
 TATTTATTTATTTATTTTGTAGATGAAGTCTTGCTCTGTTGCCAAGCTGGAGTGCAATGGCATGATCTC  
 GGCTCACTGCAACCTCCACCTCCAGGTTCAAGCAATTTCTCTGCCTCAGCCCCCTGAGTAGCTGGGATT  
 ACAGGCGTGACACCACCGCCTGGCTAATTTTTGTATTTTTAGTAGAGACAGGGTTTCACTATGTTGGTC  
 AGGTTAGTCTCGAGCTCCTGACTTCGTGATCCGCCCCCTCAGCCTTCCAAAGTGTGGGATTACAGGCG  
 TGAGCCACCGCCTGGCCAGAACTCCAGTTTTTAAACACATCTAATGCTTTAGGAATAGTAAATGGAAA  
 CATCATTTCCCCCTCTTTTGAAGTACTTCTACCTTGATGAGATGTATGTATTGGAGTACAATTTTGACC  
 TAGCCAAAGAAATTTCAAAAAGAGCCCAAAATATGATTTTACGCTTTACTGGAGTGTTCATTTTGGGG  
 GATCACTTTCTTAAAGTACTTAAAGTACTAATGCTTGATGAAAAATCATTTGTGTTTCACTTCATTAAT  
 TGAGAAAGAGCTCATGTTTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG  
 GCTGGAGTGCAATGGCGTGATCTCAGCTCACTGCAACCTCCGCTCCCGGGTTCAAGCGATTCTCTGCC  
 TCAGCCTCCTGAGTAGCTGGGACTACAGGCGCTGCCACCACGCCAGCTAATTTTTTACTTTTAAATAG  
 AGCAGGGTTTACCATAATTGGCCAGGATGGTCTCAATCTCTGACCTTGATGCCACCCGCTTGGCT  
 CCCAAAGTGTGGGATTACAGGCGTGAGCCACTGCGCCAGCAGAGTACAGGTTTACTGTAACACTT  
 TAGAAGGTCCTTTTTCTTTGATCTGTGATGTGTTCACTAGCAACAGCTTCTTTGATATGCAACAT  
 TCTACAGGCAAAATGCTCAGAGCAGCTACTCATGTTGGACAATTCAGGTCTCTCTGGAACTGGCCTTG  
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 AGCATACTACATCTTTTGTAGTGTTAAAAAATAAGTAGTCATGTACAACTTAAATACAGAAATATC  
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 GTTTGGGAGAATAGCACTATCATCTATATAGTTAACTTTGCATTAAGGTTTTTCATTAAGGTTTTT  
 CCCCTGTTTGGTTCTTTCACTTTTACGATCCATATTTTTGTGCTGGTATGGGATGATAAGATAACAGA  
 AATAGCTCTGTTTTTGTAGTACCTTTATTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTG  
 GCTGGTGGCACAATCATAGCTTACTACAGACTAACTCCTGGCTCAGCCATCTCCACCTCAGCCTCCCA  
 AGTAACTGAGATTACAGGTGCACACCACCTCTGGCTAATTTAAATTTTTCATAGAGACAGGATCT  
 CACTTGGTTGGCCAGACTGATCTCAAACCTCTGGTCTCAAGTATCTCCACCCAGCCTCCTGAAGTA  
 CTAGGATGCGCAGCATGAACCACTGCCCCAGCTAGATACATTTAATGTAGTAGAGAGATGAGATTTTT  
 ACATAGTATAATATTGAATGAGACAACAGTCAAAAGAAAATCACATACTATAAGAGAAGAGATTACCTT  
 ACCTTTTAGGAATCAAGAAAATCCCTGGAGGAGATGGTACTTGAACCTTACTGGAGATTATATGTT  
 CATCCTTCTTGGTTTATATTTGTCCACACGGTAGCTGTTCTTTTTTCTTTTTTCTTTTTTCTTTTTT  
 TTTTTTTTTTGGGAGAGTTTTGCTCTGTTGCCAGGCTAGAGTGAGTGCGCGCATCTCGGCTCAGT  
 CAACCTCCGCTCCTGGGTTCAAGCGATTCTCTGCCTCAGCCTCCCTAGTAGCTGTTTCTTAGAGACA  
 GTGTGAGTGAACTCATTAAGTAAAGTCAATACAGCACAAGTTTCATAAAATGGTAAAGAAATAGAAATA  
 AAAGTAAAGGATGAAATTTCTAAGAACTTTGTGAGGCCGGGCGTGGTGGCTCATGCCTGTAATCCAGCA  
 CTTTGGGAGGCCGAGGTGGTGGATCAGCTGAGGTGAGGATTTGAGACCAGCTGGCCCAACATGGCAAA  
 ACCCTGTCTCTTAAAAATACAAAATAGCTGGGCATGCTGGCGGGTGCCTATAATCCAGCTACTCGG  
 GAGGCTGAGGCAGGAGAAATCGCTTGAACCCAGGAGCGGAGGTGCACTGAGCCGAGATCACATCATTC  
 ACTCCAGCTGGGTGCCAAGAGCAAAAATCCATCTTGAAAAATAAGAAATTTGTCTCCAGTATCATT

FIGURE 1, sheet 2 of 66

FIGURE 1, sheet 3 of 66

TTGGTGTCTTCTCATGATAGTGAGTGAGTTACCATGAGATCTGGTTGTTTAAAGTGTGTAGCACCTCT  
 CACCTCACTCTATTCTTCTGCTCTGGCCATGTAAGATGTGCTGCTTCCCCCTCACCTTCTGCCATGAT  
 TGTAAAGTTTCTGAGGCTTCCCTAGCCATGCTTCCCATGCAGCCTGTGGAACGTGAGCCAATTAAACCT  
 CTTTTCTTTGTAAGCAATTTACCTAGTCTGAAGCATTCTTTACAGAAGTGCAAGAACAGACTAATACATTGAA  
 CATCTCTTCATGTGCTTATTGGCCATGTGTATATCTTCTTTGTAGAAATACCTATTTCATATTTGTTGTCC  
 CTTTTAAATTTGGGTTGTCTTTTATTGCTGAGTTGTAAAGTGTCTTTATATTTTCTGGATACTGGACTT  
 TTATTAAGTGTATAATTTGTAATATTTTCTCCCAATTTGTGGGTCACTTTCCACTTTCCTAAAAGTGT  
 CATTTCAAAGCAAAAATTTAATTTTGATGGAGTTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT  
 GTCTTTGGTGTCTAGCTGAGAAATTATTGTCAAATCCAGGATCATGAAAGATTACATCTATATTTTCT  
 TTTAAGAGTTATAGTTTGGCCGGGCGTGGTGGCTCATGCCTGTAATCCAGCACTTTGGGAGGCCAAGG  
 CAGGTGGAGTTTCGAGACCAGCCTGGCCAACATGGTGAACCTCCGTCCCTACTAAAAATACAAAAATTAGC  
 TGAGCATGGTGGCACACGCTGTAATCCAGCTGCTCGTGAGGCTGAGGCAGAAGATAGCTTGAGCCCG  
 GGAGACAGAGGTTGCAGTGGGCCAAAATCATGCCACGGCACTCCAGCCTGGCCGACAGACTCTGTCTCAA  
 AAAAAAAGGATTTATAGTTTGGCTGGGCGTGGTGGCTCATGCCTATAATCCAGCACTTTGGGGAGG  
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 TACTAAAGTACAAAACCTTAGGCTGGGCACAGTGAATCATGCCTGTAATCCAGCACTCTGGGAGGCCGA  
 GATGGGCAGATAATTTAGGCCAGGCAATTGGAGACCAGCCTGGCCAACATGGTAAAACCTGTCTCTACT  
 AAAAATACAAAATCAGCTGGGCGTGGTGGCACGCACCTGTAATTTAGCTACTCGGGAGGCTGAGGCGG  
 GAGAATTGCTTGAACCCAGGAGGCAGAGGTGGCAGTGAATTGAGATCATGCCACTACCTTCAGCCCGG  
 TGAGCATGGTGGCACACGCTGTAATCCAGCTGCTCGTGAGGCTGAGGCAGAAGATAGCTTGAGCCCG  
 CTGTAGTCCCAGCTACGTGGAAGGCTGAAGCAGGAGAATTGCTTGAACCCAGAAGGTGGAGGTTGCAGTG  
 AGCCAAGATTGTGCCACTGCCTCCAGCCTGGGTGACAGAGCAAGACAGGTGTACTCCAGACTGGGTGAC  
 TGCACCCAGCCTGGGTGACACTGCCTCCAGCCTGGGTGACAGAGCAACTAACTAACTAACTAACTAAA  
 ACTAAAGTGTAGTTTATATAGTTTATAGTTTAACTATAGTTAGTTTGAAGCCAGGCGCGGTGGCTCAGC  
 CCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAGAGGTGAGGAGATCGAGACCATCTGG  
 CTAACAAGGTGAAACCCGCTCTACTAAAAAATACAAAAATTAGGCGGGCGTGGTGTGGTCCCAGCTA  
 GTCGGGAGGCTGAGGCAGGAGAATCCCTTGAACCCGGGAGGCGGGGCTTGCAGTGAGCCGAGATCGCACC  
 AATGCACTCCAGCCTGGGCGGCAGAGCGAGACTCCGCTCTCAAAAAAACAACAAAAAACAACAAAAA  
 AAAGCCATAGTCTTTCTAACTATAGTTAGTTTATAATTAATATAGTTTATAGTTTATAAAATATACTA  
 TAAAGTTATAGTTTATAGCTTACATTATGTCTTTGACTTCTTTTGCAAAATTTTATGTATGATGTGA  
 GGTAGGAGTCCAGATTCAATGTTTTTCATATAAATATCCAGTTGTCTTAGCACCTCTGTGGAATATCT  
 TGCCATTCTTGGCAAGAAATCAATTGACCATAAATGATGGGTTATCTTTGGCAACCAATTTCTATTCA  
 TTGGTCTGTATGTCTGTCTTATACCAGCACCACACTGTCTTGATTAATGTAGCTTTGTAGTAAGTTTGT  
 AAATGGGTAAAGTGTGAAAAATCCAACCTTAATTTTCAAGATCATCTGGCTATTTTGGGTCC  
 CTGCTTTTCCATATGATTTTAAAGTACAGCTTTTCCATGAACATGGAATATTTTCCATTTATTTAAGT  
 CTCTTTAATTTCTTTTCTTTTCTTTTCCGAGATGGCGTCTGCTCTGCTCCAGGCTGGAGTGCAGTG  
 GCACGATCTCGGCTCACTGCAACCTCTGCCTCTGGGTCAAGCAATTTCTCTGCCTCAGCCTCCTGAAT  
 TGCTAGGATTACAGATGCTCACCACCATGCCAGCTAATTTTGTATTTTAGTAGAGACAGGTTTTCAC  
 CATGTTAGCCAGACTGGTCTTGAACCTCTGACCTTGTGATCCACCCGCTTGGCCTCCCAAAGTGCTGGG  
 ATTACAGCCTGAGCCACCGCGCTGGCCTTCTTTTCTTTTCTTAGAGACAGGCTCACTCTGTGTAC  
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 TGCCCTCAGCTTCCCAAGTAGATAGGACTACAGATGCATGCCTCCATGCTTGGCTAATTTTAAATTTTTT  
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 TGCCCTTGGCCTTCCCAAGCAATGAGATTACAGGCATGCACCAACCAAGCTCTTAAATTTGTTTTA  
 ACAATGTTTTGTAGTTTTCAGTGTATGTGTGTACATTTCTTTTGTAAATTTATTACTAATATTTTATT  
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 TTTTAAAAAATTACTATTATTATTATTTTGTAGATGGAGTCACTCTGTCTCAGGCTGGAGTGCAG  
 TGGCAGGATCAGACTCACAACAACTTCTGCCTCCAGGCTCAAGCAATTTCCCTGCCTCAGCCTCCTGT  
 AGCTGAGATTACAGGAGTGAACCACTATGCCTGACTAATTTTGCATTTTAGTAGAGATGGGGTTTGC  
 CATGTTGGCTAGGCTTGTCTCAAACCTCTGGGTTGAGGCTACCACTTGCCTTGGCCTCCCAAAGTGCTG  
 GAATTATAGGCGTGAGCCACCACCCAAATATTGTTGAGTGTTTTTAATCACAAAAGTGTGTTGGATTT  
 TTTGTCAATGCTTTTTTTTTTGTCTTACTGAAATAATCATGTGATTTTATCCTCTATAGAATTGT  
 TTATTGTTAGACTTATTGTATTAGTTGGTATACAGAGAGAGGAGATATTGATAATGTGCCCTCAGTTGA  
 CAGGAGAAACAAAGTCAATTAATTTTCTCTTATAAATAAGAAATAATTTGAGAACTCACACAATATGA  
 AAAGCTATTCTATTAGATGTGCACACTACTGTAGCCTATTTCTATTTTGTATTGGTTAGTATGCATCAG  
 GTCATCTCATAGGTTGGGCTCTTCTGAGTCTTGCAATTTCTCAAACACTTTTTTTCTTTTGTGTATT  
 TATACCAAGTCACTTTTTGTTTGTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  
 GAGTCTGGAATCTCACTCTGTGCGCGAGGCTGGAGTGCAGTAGAGTGATCTTGCTCACTGCAACCTGCG  
 CTCCAGGTTCAAGCGATTCTCTGCCTCAGCCTCCCAAGTAGCTGGGACGACAGGTGCACGCCACTCTG  
 CCCAGCTAATTTTGTATTTTAGTAGAGATGGGTTTACCATGTTGGCCAGGCTGGTCTCGAACTCCT  
 GACCTCAGGCAAGCCACCCACCTCAGACTTTCAAAGTGTGGGATTACAGGCGTAAACCACTGCGCCAG  
 ACTACTTTTAAAGAAATATATAGGAGACTAAAATGAAAAAAGAAACAAACCTTTACTCAGATTGAG  
 ATATTAGTTAACTTAAAGGCTGAAACAAGGAAATGGGTTTGTCTTTTCTGGTTGTGCAGAGAGTG  
 TATGAATAAAAGATCTCACAAGTTCAAGTGAAGAGCTGATTAAGAAATTCATCATCCAATATCTT  
 CTCAGTGTAAAGCAAGCAGATGAAGTTAGCTATAGCTCGACCCTTAACAGCTAATCAGGTAAACTCTTCA  
 ACTCACTTTGAACGTAAACATAGTATACTACAGACTTTTGTGTTTCTCAGAGGTAAAGAGAAACAA  
 TGGCTATATGGCATACTATGAGGATTAATTTTATATGTCTACTTGACTGGGCCATAGGTTGCCCAATATA  
 TGGTCAAAACATTATTTAGGTGTTTCTGTGAGAGTGTGTTGGATAATTTAACATTAAATTTGGTATACT  
 GAGTAAAGCAGATGATACTCCCTATTGTGAGTAGGCTCATCCACTGAGTTAAAGGCTGAATAGAACA

FIGURE 1, sheet 4 of 66



AAAGATTAACCCCTCCCCAGGTAAGAGCGAATTCTTCTGCCTGATGGCCTTCAAAATGGGACATCAGCT  
 CTTTTTCTGCCTTTGGACTCAAACCATTTGGCTCTTCTGGGTCTTGAGCCTGCTGGCCTTTGGACTGGA  
 GCTACACTATCAGCTCTCTTGATTTTCAGGCCTTCAAACCTAGACTCAAACCTACATTATTGGCTCCCCTG  
 GCTCTCCAGATCCCAGCAGATCTTGGGAATTGCCAGCCTTCATAATTGCTGAGGCAGTTCCTTTTTTTT  
 GAGATGGGATCTTCTCTGTCACCCACACTGGAGTGTAGTGGTACGATCATGGCTTACTGCAACCTCAAA  
 CACCTGGGCATAGTGATGCTCCTGACTCAGCCTCCTGAGTAGCAGGGACCACAGGCACATGCCACCATG  
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 GCTGGGCTCAAGCTATCCTTCCACCTCAGCCTCCCAAGGTGCTGGGATTATAGGCATGAGCCACTGTGCC  
 CAGCCAAAAGTCAGAAGATAATTGAATGGCATCTTAAAGTGTGAAAGAAAAAATACTGACAACCCAGAA  
 TCTATACTCAGTGAAATATCTTCAAAATTGAAGATGAGGCCGGGCGCGGTGGCTCACGCCTGTAATCC  
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 GAAACCCCGTCAGTACTAAAAATACAAAAAAATAGCCGGCATGGTAACGGGTGCCCTGTAGTCCAGC  
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 CCACTGCACTCCAGCCTGGGCGAGAGTGAGACTCCGTCTCAAAAAAATAAAAAAAAAAAAAAAAAA  
 AATTGAAGATGAAATAAACATGGTTTTCAGAAGAAAAAAGAAATCATTTATTGTGAGAAGAACTACAC  
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 GGGTAGAATAAGGAGTAAAGAAAGGGTAAATAGAAATTAATACTGACAATTAATTTTTAAAAATCCTATA  
 CAATTTATAATATAGAAAGAGTAAACATATCAGTAGTACAAGGGCAAGAAATGGTAAATGGAGTTAAG  
 CTATCATAGTGTTTTATTAGGGAGTATCACAAAGTATTAAGTAGAATGTAATAGGCCGGGCGGGGT  
 AGCTCACACCTGTAATCCGAGTACCTTGGGAGGCTAAGGAGGCGGATCATTTGAGTCAAGAGTTCCGAG  
 ATCAGCCTGGCCAACTGGTGAACCCACCTCTACTAAAAATACAAAAATAGCCAGGTGTGGTGGCAC  
 ACCTCTGTAATCCAGCTACTTGGGAGGCTGAAGCATGAGAATAGCTTGACAGTGGGAGGCGGAGGTTC  
 AGTGAGCCGAGATCCTGTCAGTGCCTCCAGCCTGGGCGACAAAGCGAGACTCTCAAAAAAATAAAAA  
 AAAGATCAATAAATAAATAAATATGCAATTAATGTAATCACAAATCCAGCTTAACAATAAATAAATTA  
 AAAGATATTAATAAATAAATAAATGAAGAAAAATGAAATAAAAAACTTTATTAATCCAAGGCCGGGCGCG  
 TGCTCATGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGGGTGGACCACTTGAGGCCAGGAGTTCCA  
 GACAGCCTGGCCAACTGATGAAACCCGCTCTCTACTAAAAATACCTGGGCAAGTAGAGCATGCCTGG  
 CCGGGCGCAGTGGCTCATGCTGTAATCCAGCACTTTGGGAGGCTGAGACGGGTGGATCAGGAGGTGAG  
 GAGATCGAGACCATCCTGGCCAACTGGTGAACCCCTGTCTCTACTAAAAATACAAGAATTAAGTGGGCA  
 TGGTGGCACATGCTGTAATCCAGCTACTCTGGAAGCTGAGGAGGAGAAATGCTTGAACAGGGAATC  
 AGGTTGCAGTGAGCTGAGATCATGCCACTGCATTGCAATCTGGCGACAGAGCGAGATTCTGTCTCAAAAA  
 AAAAAAATAAAAAAATAAGAGCATGCCATAAATCTGAGCTACTCAGGAGGCTGAGACACGAGAATCACT  
 TGAACCCAGGCGGCGGAGGTGCACTGAGCAGCGATCACACCACTGCATTCCAGCCTGGGCGACAGAGTG  
 AGACTCCCTCTCAAAAAACAAACAAACAAACAAACAAACAAACAAACAAACAAACAAACAAACAAACAA  
 AAATGGTAGAGTAGTAGTAAAGGAACAGAGAATAGATGGTAAAAACAATAAATAACATGATAAACCAGC  
 AATTTCAATAATAAATAAATAAGATAGTGGTATTGTAAGTGGCAATGGGTTACCTTGCCCGCTGCCTA  
 GACAGAGACGATTTCTCAAGACAGGGAATGCAATAGAGAAAGATAAATTCACGACAGAGCTGGCTGTAT  
 GGGAGACAGAGTTTATTATTACTCAAATCAGTATCCACAAGCATTCCGCCTCAGAAATTTTAAGGAC  
 AACATGTTGGGTGGGAGGAAGCAGTGAAGTGGGAGTGTGATTTGGTCAAGAGTGAAATCATAGGGAATG  
 GAAGCTGTCTTCTTAAGCTGAGTCAATCTCTGGGTGGGACTGCAAGATCAGATGAGTCAAGTTATCAAT  
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 TAATGTTAGTCTACCAAGGCATCTAGTCTCCAGGCAAGAGGAGGTCTGCTTTGGGAAAGGCTGTCTA  
 CTCTTTGTTTAACTATAAACTATAAAGTAAGTTTCTCCAAAGTTAGTTACGCTACACCCAGGAATGC  
 ACAAGACAGTGTGGAGTTAGAGTTAGAAACAGATGGGTCAGTTAAGTTAGATCTCTTCACTGTCTCAGGCA  
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 CTAAGCATTTTCAAGAAACATCTGTAGGCGGGTGCAGTGGCTCAGCCTGTAATCCAGCACCTTGG  
 GAGGCTGAGGCGGCGGATCACGAGGTGAGAGATCGAGACCATCCTGGCTAACATGGTGAACCCCGCTC  
 TCTACTAAAAACAAAAAATAAGCCGGGTGTTGGTGGCGGGCACCTGATCCCACTACTCAGGAGGC  
 TGAGGCGAGGAATGGTCAACCCAGGAGGCGAGCTTGCAGTGAAGCAAGATCCTGCCACTGCACTCCA  
 GCCTGGGTGACAGAGCGAGACTCTGTCTCAATAAAAAAAGAAAGAAACATCTGTAGCCAGACGCCA  
 CCTATAGTCCCAGATCTTGGGAGGCTGAGGCGAGGATAGCTTGGGACAGTTTGAGACAGCCTGAG  
 CAACATAGCAAGACCTGTCTCCAAATTTAAAAATGTTTAAAAAGAGATATATTTTACATATAAGAACA  
 CAGAAAGATGTTATTAATAAATAAATAAATGACATTTGGGTAATGTGAATATTACCTAAAGAAAGCTGCA  
 TCTATGTGGAATGTTACCGGGAATGGTCCCAATCTAGACCCCAAGAGAGGGTTCTTGGACCTCACGCA  
 AGAAAGAATTAGGGGCAATCCATAAAGTGAAGCAAGTTTATTGGGAAAGTAAAGGAATAAAGAAATGGC  
 TACTCCATAGGTAGAGTCACAGTATGGCTGCTTAACGTAGATACCTAGTTATTTCTTGATTATATGCT  
 AAACAAGGGGTGGATTATTCATAGTTTCTGGAAGAGGGGAGGCATTTCTCGGAAGTGGGTTCTCT  
 CTTTTTTTAGACTGTATAGGGTAACTTCTGTATGTTGCCATGGTATTATATAAATGTATGGCCCTAGTG  
 GGAGAGTCTTTTAGCATGCTAATGCATTATAATTAGTGTATAATGAGCACTGAGGACAACAGAGGTCAC  
 CTTTGTCTCCATCTTGGTTTTGGTAGGTTTGGGCTATCTTCTTATCGCATTCTGTTTACATCAGCAGGCT  
 CTTTGTGGTCTGTATCTTGTGCTGACCTCCTATCTATCCTGTGACTAAGAATGCCTAAGCTCCTGGGAA  
 TGCAGCCAGTAGTTCTGAGCTTACTTTACCCAGCCCCCTATTCAAGATGGAGTTGCTCTGGTTCTAATGCC  
 TCTGACAGAACCTCCTGATTGTCAATAATTACCAGTAGCAGCAGGAGCTATTACACCCAAATTTTAC  
 CTTAAAAAGAAATGGCTTCAAAATGACCTCCCCATGGGAAATATTGAGGACTTAACACAGGATTGTTT  
 TTCTCTTCAATTTCTCTACGATTCTTTCTTTCTTTTTTTTCTTTTCTTTTCCGAGGTGGAGTTTCTCTCTT  
 TTTGGCCAGGCTGGAGTGCCTGGTGAATCTTGGCTCACCACAACCTCTGTCTCCCGGGTTCAAGCAAT  
 TCTCTGCTCAGCCTCCCGAGTAGCTGGGATTACAGGATGCGCCACCACGCCAGGCTAATTTGTATT  
 TTTAGTAGAGACGGGTGTTTCTCATGTTGCAACCTCAGGTGACCCGCCACCTCGGCCTCCCAAGTGT  
 GGGATTACAGGCGTGAGCCACTGCACCAGCCTACCATTCTTTTGGGACAGGGTCTTGTGTGTGGCC  
 CAGGCTGGTTCTAATCTCTGGCTCAAGCGATCCACTGGCCTCAGCCTCCTGAAGTGTGGGATTACAG

FIGURE 1, sheet 5 of 66

FIGURE 1, sheet 6 of 66

CCAGGCTGGAGTGAATGGCACCATCTCTGCTCACTGCAACCTCCGCCTCCCAAGTTCAAGCAATTCTCC  
TACCTCAGCTTCCCGAATAACTGGGATTACAGGCACCTGCCACCACACCCAGATAATTTTTGTATTTTTA  
GTAGAGACGGGGTTTACCATGCTGGTCAGGCTGGTCTTGAACCTCTGACCTCAGAGGATCCACCCGCCT  
TGGCCCCACAAATGCTGGGATTCCAGGCGTGAGCCACAGTGCCTGGCCATGACTAACTCATTCCATTGA  
GGGTCTTTTCTCTGAAGTTTGTGCTATGACTTGATATTTCAAAGAAGGGAAATAGATGTCTCAGTAT  
TAAATTTCAAACGGGAAGTTTAACTGTATATTGGCTTATTTAGGGTAAGAGTGAAGCTATCCTGGACAA  
GAACCTTTGACAGGACAATACTATTCACTCTGAAGGACCAAAAAATGAGCAGAAAAATTTGGGATAAATGTC  
AACCAAGATTTGAACCTTAAAGAAAAGCAAGCATCGAGTTAGACAGACGTCCATATTCATTCAACTGGGAA  
AATAAACTGCAGTCCCAACATCAGAATTTCTTGGTCAGTTGGTTATTGCGGGACAGCATTCTCTGCA  
TGACAGTATTGTCTCCTTACCAGCCACAGAGGAGGCTGTGAGAGAGAGGATTGGGAAATTTGGTCAAAAT  
GAGAAATCTTGGAAATCTGTAAGTATATAGATATAAAAGTTATCTTTCCAGTTTGAATCTTTTATGATG  
TAGATTTTAAATATCAGTCAATTTAGGAACTCTGTGGCTCTGAATTTAGTTATAAATCTAGTTTACTA  
TTACAGTGAAAGAAGAGAAGAGGCTGTTTATTATATTGGAAGTAGTGTAGCATGTTTATTAAGAGTG  
CAGAGCCCCAGCATGAAGCCTAGCTCTGCCATTGGCCAGCTGTGTGTCTCTTGGGCAGACTACTTATCC  
TCTCTGTGCCTCATTTTCATTGTGAAGTAGGGGACGGTGTGTAGTTCCACCTCACAGAGTGGTTGCAA  
GGCAAAATGGGTTATAACATGATAAATGCTTAGTTTAGTGAAGTTCAATAAATATCAAAATAGTGGTA  
TGTTAAAGATAGTGTTTACATGATAACCTAAAATTAATTGCCAGTTTGTTTTAAATTTACTGGTCAAGTCT  
ATCAAATGATTGAATCAGCATGTTAAGTGGATATATCTCATTGTGTCCAGATCATTTTAGTATATTCA  
TGACTCCTCACTTTAAATTCAAATGATAATAGGTACAGTTAGTCTCCATATCTGTGGATTCAACCAAG  
TAAAGTGAATGGGTTTGCATCACAAACAGGCGTGGTGGCTCACATCTGTAGTCCAGCACTTTGGGAGGCT  
GAGGCGGGTGGACCGCTTGGAGCCAGGAGTTGAGACCAGCCTGGCCAAACATGACAAAAACCCATCTCTA  
CTAAAAATACAAAAATCAGCTGGGTGGTGGTGGCTTGCACTGTAGTCCAGCTACTCGGGAGGCTGAGG  
GATGAGAATTGCTTGAACCCAGGAGGTGGAGGTTGCAATGGGCCGACATCTCACCCTACACTTAGCCC  
GGCAACAAATCAAGACTGTCTTTTTTTTTTTTTTGGAGCGAAGTCTCGCTCAGTCGCCGAGCTGAGT  
GAGCGCAGTGGCGCAATCTCGGCTCACTGCAAGCTCCGCCTCCAGGTTTACGCCATTCTCTGCTCAG  
CCTCCCAAGTAGCTGGGACTACAGGCGCCACCACCAGCCTGGCTAATTTTTTGTATTTTGTAGAGAG  
CGGGGTTTACCCTGTTAGCCAGGATGGTCTCGATCTCTGACCTCGTGATCCGCCCCGCTCTCGGCCCTCC  
AAAGTCTGGGATTACAAGCGTGAGCCACCGTGCCCGGCCAAGACTGTCTCAAAAAAATAAATTTGCA  
TCTGTACTGAACATGTACAGACATTCTTCTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCTTCT  
TAACATTACGTTATATTAGGTATTATAAAAGTCTCCCGAGAGACAGAGGTTGCAGTGAGCCGAGATCGC  
GCCATTGCACCTCCAGCCCGGGGAGCAGAGCGAGTCTTCTCTCAAAAAAATAAATTTGAGATGAT  
TTAAAGTGTACAGGAGGATGTGAATAGTTAGATACAAGCACAAATACCATTTTGTATCAAGAGCTTGAGT  
ATTCAATAAATTTGGCATCTCTAGGAGGTTCTGACACCAGTCTCCAGGGACGCTAGGGACGCCGTGATA  
TGCTTAGATTAGTGTGTAGTGAACCTGTACACAGTAGCTGTTTAGAGTTCCCATTTTTTAAAAA  
TACTCTGCTCTTTTAAATTCATTATACAGCCTTATTTCTCAGTACTGACTAAAAATGTCTTATTTTATA  
TATCGAAGCTTTTCTTATTTTATTTTAAACCAATGTATACATGCTCAAAATCTAAAAATCGCCTGTATTAAT  
CTACTTAGTAACTTAATGCCACTCCAATGTGGATATAAATAGAAGTTGCACATAGTTTTGAAACTACGTA  
GAAAGCATGGAGGCTGGGTGCGTAGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCTAAGGTGGGCAG  
ATCACCTGAATTCAGGAGTTCGAGACCAGCCTGACCAATATGGCAAAACCCGCTCTTACCAAAAAATACA  
AAAATGCTTGGCATGTGGCATGCACTGTAGTGCCAGTACTTGGGAGGCTGAGACAGGATAATGCT  
TTGAACCTGGGAGGCGGAGGTTACCGTGAGCCAAACGTGGCACCCTGCACCTCCAGCCTGGGTGAAAGAGC  
GAGACTCTGTCTTAAGAAAGAAAGAAAGCGGGCGGGGGGGGGGGAAGGGCAAGCAAGCATAGAGCAT  
GAGGAAGTTTTAATGTCTTTTCTTACAGAGAACTAAAGCCTTTCAGCAGGAAATCCAGATGCTCACTA  
AGTGACAGGACAGCTGCATCACTTTTAAAGAAAGGTTGCTCAAGAAATCATCCCAAGCTGAAGAAAAAG  
TATTGGGAACAAAAAGACCCTTGAATGTCTAGAAAGAAAAATGAGATCAAGGACTTTTCAAGAGAG  
ATTAGACTTGGACAGGAAGAAAGTGAAGATTTCTGAAGTATAAGCATTCCTTTGATAATGAAATGATT  
GCATTTTATTCTAATACTTTAAGCTTTATCTAATGTTTGAAGCTGTTAATACTGTTAATACTTTTCTCCACA  
TTGGGAAAGGGGGAATTTGCTACAAACTCTGAAAGCTTCCGATTTTATTTTATTTTATTTATTTATTTAT  
TTTTGAGAGAGAGTCTCGCTCTGTCAACAGACTGGAGTGCAGTGACGCTATCTTGGCTCACTGCAACCTC  
TGCTCTCTGGGTTCAAGCGATTCTCTGCTCAGCCTCCCGAGTAGCTGGGACTACAGGCACGCGCCACC  
ATGCCAGCTAATTTTTGTATTTTGTAGAGACGAGGTTTACCATTTTAGCCAGGATGGTCTCAATCT  
CTTGACCTTATGATCCACCTGCTCAGCCTCCCAAGTGTGGGATTACAGGCATGAGCCACTGCCCTGG  
CCTCTGATTTTATTTTAAAGCCTCTTCTCTCTCCGTATCTCCATGTCTCTTTTGTGTACTTATTTGAT  
GTTTGTGTGAGGCGATCTGTTTACATATATATCTCAATGTACTTTAAGGAGAGGATTAGAAGAAAAGGA  
GCTCAAAGGAATAACTCTCTTTTTTCTTTTTTTCAGATGGAGTCTCACTCTGTCAACCAGGGTGGAGT  
GCAATGGTGTGATCTCGCTCACTGCAACCTCCGCCTCCAGGTTCAAGCGATTTTCTGCTCAGCCTC  
CCAAGTAGCTGGGATTACAGGTGCTCACCACCCGCCCGCTAAGTTTGTATTTTGTAGTAGACAAAGGT  
TTCACCATGTTGGCCAGTCTGGTCTCAAACTCCTGACTGCAGGTGATCTGCCTGCCTTGGCCTTCCAAAG  
TGCTGGGATTACATGTGTGAGCCACTGTGCCCGCCAAAGGAATAACTCTCTAATGGGGAAATTTTAGGA  
ATGTGACAGGCAGATATAATAGCATTTGATAGGGGGCCATTGATGATGCTCTCAATAATCACTGTATA  
AGTCATTCTCTCTCTACTCTCTGCTTCCCTGAATCTGTAAGGAAAAAGGCAGTCTAAAAGTTGGATAG  
AAATAGGTAGGTTGCAATACAATTTATTTTTCAGGAGATTCTCTATTTTACTACCTCTTTCATAGAAATGCC  
TATCATAGCCGGGCACAGTGGCTCACACCTATAATCCTAGCATTTTGGGAGGCTGAGACAGGCGGATCAC  
GAGGTGACAGGATTGAGACCATCTTGCCCAACATGGTGAAGTCTGTCTCTACTAAAAATACAATAATTA  
GCTGGATGTGGTGGCACACACCTATAATCCAGCTACTCTGGAGGCTGAGGCAGGAGAATTGCTTGAACCT  
CAGGAGGAGAAATGCAAGTGAAGCAAGGTAGTGCCGCTACATTGCAGCCTGGTGACAGAGCAAGACTCC  
ATCTCAAGAAAAAGAAAAAAGAAAAAAGAAATGCTATCATAACCAATACGTTATAGTATTTCTA  
TAATGCTATGGTCCAAAGTGGAACTCTTGCTCACTCACTTACCATTACTCATTTAGTCTTTTTTTTTTT  
TTTTTTTCTGAGACTGAGTCTCACTCCATCACCAGGCTGGAGTGCAGTGGCGCAATCTCGGCTCACTGC  
AACCTCCACCTCCAGGTTCCAATGATTCTCTGCTCAGCCTCCCGAGTAGCTGGGACTATAGGTGTGT  
GCCACCACACCCAGCTAATTTTTGCAGTTTTTGTAGAGATGCAGGGTTTACCATGTTGGCCAGGCTGG

FIGURE 1, sheet 7 of 66

TCTTGAACCTCCTGACCTCGTTATCTGCCTGCCTCAGCCTCCCAAAGTCTGGGATTATAGGCATGAGCCA  
CTGCGCCACGCTTCATTAGTCTTTTGGCTCATTATTGTTTATCCAATATTTATTGAGCATTAGT  
TTCTTTTCTTTCTTTTGGAGCGGAGTTTGGCCCTGTTGCCTAGGCTGGAGTGCAATGGCGCGATCT  
TGGCTCACTGCAATCTCTGCCTCCCGAGCTCAAGCGATTCTCCTGCCTCAGTCTCCTGAGTAGCTGGGAT  
TACAGGCATGCGCCACCACACCTGTCTAATTTTGTATTTTAGTAGTGACAGTGTTCCTCATGTTGTTC  
AGGCTGGTCTCGAACTCCCGACCTCAGATGACCAGCCACCTTGGCCTCCCAAAGTCTGGGATTACAGG  
TGTGAGCCACCATGCGCGGCTTAATAGTTTCTTTACTAGAGTCTTGGGTTTCTGGATTCTACTGTAT  
ATTGTCAAATGTTTCTTAGGAAATAATGTATTTTAAATTTCACTTATTTATTTTATAAATAATTTGA  
TTCTAAAGGTGGAACAGTTTGGACCAGCTCATGGGAGAACTGTCTTTTTTTTTTTTTTTTGGAGACAGT  
TTGCTCTGCCTCCAGGCTGGAATGTGGTGTACCATCACGATTCAGTGTAGCCTCAACCTCCTAAGGCT  
CAAGTGTCTCTTGGCTCAGACTCCCGAGTAGCTGGGACCACAGGTGCACACCACTATGCCAGTAAAT  
TTTTGTAGAAATCGAAAGTCTTCCATGTTGCTCAGGCTGGTCTTGAACCTCTTGTGGCTCAAATGATCCGC  
CCATCTCTGCCTCCCAAAGTACTGGAATTACAGCCTTTATTTCTTTTAGATTTCAATTTACTGCCCTTA  
AGTTGCAAAATGTTCTCTTAGAATTATTTTATCTTTGCATTCTGTATCCATTCTGTATGCATATCTATA  
TATTTCTGTATATCTCTCTTAATATTGTGTATTTTCACTTTCTCTCTTTCTTTTAAACAGGCTTG  
CCTGAGGCATCTATTTTATCTTTTCCAAAGAACAGTGGTTCTTTTGGAGACAGGGTCTGGCTCTGTCTAT  
TGTCCAGGCTGGAGTGCACTGGCGTGATTATGGCTCACTGAAGCTCAACCTTCAGGCTCCAGTGATCC  
TCCTGCCTCAGCCTCCAGATAGCTGGAATATAGGTGCACGCTCCACGCTGGCTAGCTTTTGAAGT  
TTTTGTAGAGATGAGGTTTCGCCATGTTGCCAGGCTGGTCTCAAACCTGCTGAGCTCAAGTATCTCCC  
GCTCGGCTCCCAAAGTGCTAGTATTACAGGCATGATTCACGCTGGCTGGCAGTCTTTTTTTAAAT  
ATACGTTTTATGGCTGGCAGCTGGCTCACCCTGTAATCCAGCATTTTGGGAGGCTGAGGTGGGCAGA  
TCACTTGAAGTCAAGAAATCGAGACAGCCTGACCAACGTGGTAAACCTGTCTCTACTAAAAATGCAA  
AAGTTAACTGGGCATGGTGGTGTGCACCTCTAATCTCAGTACTTGGGAGGCTGAGGCAGGAGAATCACT  
TGAACAGGGAGGTGGAGGTTGCATTGAGCTGAGATTGTGGCACTGCACCTCCAGCTGGGCAACAGGCG  
AGACTGTCTCAAAATAAATAAATAAATAAATAAATACACATTTTATTAGTTTATTTTGGTTTATATGTA  
ATGAATATATAGTATGTTTATTAATCTGCACCTACTTTCTCTTTCCCTTCTTAAGTAAATGTGCT  
TTTTTTGCTTTTGTTTTTAAATCAGAAAAAGAGTAAGTACTATTGAATGTTCTCTGTAGCTTGCCAA  
TAGATTTTTATAAGAAATGTTCTTTTCCATGTTTCTATGATTTTTTGAATTTTAGTGTTGATTTCCT  
TTTTTTGGCTGAAGGTATTGAAATTTTTGTTTGTGTTTGTGTTTTGTTTTGAGACGGAGTTTCACTCTTG  
TTGCCAAGGCTGGAGTGAAGTGGTGCAATCTCGGCTCACTGCAACCTCTGCCTCCAGATTCAGCAATT  
CTCCTGCCTCAGCCTCCCTAGTAGCTGGGATTACAGGTGTGCACCACCATGCCAGTGAATTTTTGTATT  
TCTAGTAGAGGTGGGTTTCCACACCTTGGCCAGGCTGGTCTCGAATTCCTGACCTCAGGTGATCCCAT  
GCCTCGACCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCAGCCAGCTAGAATTTTTTAAACCC  
TTTATACACACACACACACACACACACACACACACACATTTTCAAAATCAAATATACCAAGAGTCTTTTAT  
TGAAAGGAGCAGCCCTCTTCTGTACCTCTCTTATTTCCAGAGGGAAGTCTTTAACTCTTTTAGCTGTT  
TCTGATAGTAACCTTCCATTTTCCCTAAACAATTTTAACTGCCTTATCTCGAGTTATCTATATTAGACATG  
TTGTTGATTTCCTGTTATATGATAGATGAAATTTTCACTCTCTATACCACCTTTCTACCTGCTCTCTTCAT  
CTTCCCAATCTGGTTATATTGATATTTAAGCTAAATGCATAATCAGCATTTACTTTACCGTGATACATA  
ATGTTTACAAAAGCATGAAGTACTATATCTTGGTACATTTCTTCTTGTATTGCATTTTATTTTCTCT  
ACAGTTTAAATCTCTTATATTTTTCACTAGTTTAAATTTTCACTGTTTATTTATCAAGGTTTTTTCTCTG  
CCTAAATCTGTATCAGATGATCCTTTAGTCTTTTAAATCTCCCATTTTCTCTCCCAAAGTCTTTCAT  
TCCCTTGCTTCACTCTGGATTTTACTCTGTGGGCTGAGCACAGCCATGATGCCATGACTTTCTCTCTCT  
AATCTCCTGGTTAGGTTTCACTGTTTGGCGAATCACATTTCTTCTCTTTTTTGGTTTCTTCTTCTTATT  
TCTAGGAATAATCTATCATATAATAATTTTCTTTTTTGGACATTGCAATGTTTCACTTTTTTCTATTA  
TGAATAATGTTGTAAGAATATCTTTGTGGGCCAGGTGCGGTGGCTCATGCCTGTAATCTCAGCAGTTTG  
GGAGGCCAAGGTGGGCGGATCACCTGAGGTGAGGATTTGCGATCAGCTGGCCAACATGGTGAACCCCT  
GTCTCTACTAAAAATAAAAAATTAGCCAGGCTGGTGACAAGCGCCTGTAATTCAGCTACTCGGGAAG  
CTGAGGTGGGGAATCACTTGAACCTAGGAGCGGAGATTGCAATTTAGCCAAGATTATGCCATTGCACTC  
CAGCCTGGGCCCACAAGAGCGAACTCTCAGATATTCAAAAAGAAATATCTGAATATCTTTATGGCCGGGTG  
CAGTGGCTCACCTTGTAAATACAGCACCTTGGATGAGCAACGAGGAGGATCACTTGAGCCAGGAGAT  
TGAGGGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAG  
ACTGAGTGGTGGATGGGAGGATCACTTGAACCTGGGAGGTCAAGCCTTCACTGAGCTGTGATAACGC  
CACTGCATTCCAGCATGGGCGACAGAGCAAGACCTAACTTAAAAATAAAATAAAATAAAATAATCTT  
TGTGTAGTCTTTTTTTTTTCCCGAGACGGAGTTTCGCTCTTTCGCCCAGGCTGGAGTGCACTGGTGC  
AATCTCCGCTCACTGCAGCCTCCGCTTCCGTTTCAAGCGATTCTCTTGCCTCAGCCTCCTCAGTAGCT  
GGGATACAGGCACCTGCCACCGCCAGCTAATTTTGTATTTTAGTAGAGACCGGTTTCACTCATG  
TTGGCCATGGTCTCGATCTCTGACCTCGTGATCTGCCTTCTCAGCCTCCCAAATGCTGGGATTACAG  
GCTTGAGCCACAGTGCCCGCCGCTGTGTGAATCTTATCCACATATTGATTATTTCTTTATAATACAT  
TCCTAGAAAAGTTGAACATATCTAGTCTGCTGGTCTTATAAATCTATTTTCACTTGTACTCTTGGT

FIGURE 1, sheet 8 of 66

AGTCCTGAGTCATCACTTTTATTGTCATATTTTATTTCTTGATTATTTTAATAATGCTTATTTATGGTG  
AAAAATATTTTACTTATGGAAGTATTGTTAAGCCTGCAGTGTGTAGTCTGGAGTGGATGTGGTATTATG  
CTAGTGATAATAACATCTTAAAGCACAATTTTACTTCAATACTGTGATTCTGCAAAGGAAACCTC  
AGGGCATTAAGCATTTCCAGATAGACAAGCATAGCAAGAAGTTCAAAAAGCTAGAGAAAGCAACATGCAA  
CAAAACAATGTTATTGAATATTTGGCAGAATTTGCAGATTGCTACTACGCAAAGATTGGAGGAGAAAAAT  
TCAGAACTTCAGAAACAGCTCAGTGATTGAAATTGTCAAATAAAAAATATGAAAACTCAGCTGACAAGA  
GTAATGTCTTAAAGTAAGTAAAGGAAGTGAGGCTTTCAGAAATCACTAAAGCTTTGGTCTTTTACCA  
TTTTAGCAGCATGCTTTTTCATTGAAGCTAAAAAAATTAATATTAATAATTTTACATACATACAAAAGA  
ATATATATTTAAGCATATAGAATAAAATTGGAATTCACCACTCATTTTAAGAAACAATATTACCAATAC  
AATTGAAACCCCATATATCCATATATCTCCTCCTTGTATTCTAAGTGTATTATTACAAATCCCTTGT  
TTTTTGTATTATTATTATTCTTTTGGAGACAGAGTCTTGCTCTGTTACCCAGACTGGAGTACAGTGG  
CGTGATCTTGGCTCAGTGCACCTCTGCCTTCCAGGTTCAAGTAATCCTCCACCTCAGCCTCCCAAGTA  
GCTGGGAATACAGGCGCATGCCACCATGCCAGTTAATTTTGTATTTTAGTAGAAACAGGGTTTCACC  
ATGTTGGCCAGGCTGGTCTCAAACCTCCGACCTCAAGTGATCTGCCTGCCTTGGCCTCCCAAAGTGCTGG  
GATTACAAGTGTGAGCTACCTCAGGCTGTGTTTTTGTGTTTAGTTTCACTTGTGTCTCTTATTGGGGT  
AATAGTTAAAAGTTGTAGTCATTTTGGGGACTCTTCTTGGACCTTCTCCATATCAAACCTCAGTTATAC  
TATTTCAAAAATATGCCCTTAAGCCAAACAGGCACTAAATACTGATCAACTGATATGCCAGTTTATCAG  
CAATATTTCTCTTACTGAAATGCCAATATCTCTGTATTCTGTATTGATTAAATGAGGGCTTTAAGA  
CCTTTGAGGATGCAGAAACATGTTAAGACTCTTAAATCCCAAGTGGCCAGTTAATAAAAGTGCTAAGT  
AATAGTTTAAAGTGTGAAACAGCAGATCATGGAGAAATGCTCTTAATTCAGAAATTTGGAATGTTTTCTTT  
TCCATATATCTCTGTCTTCATAAAAAAGAAAGAAAGGAAAGCAAGAGTTATCATAACTGTTATT  
TAGAAGAGATCTAATCCTAGTTATTTCCCTTCTTCCCATCTTATATGCTGTACAGGACAAAACAAT  
TGAAGAGCTCAGGCAATCTTTAGCAAATGTTGAAAGGATGAAAGAGAAGGCAATGTTGAAACGATGAAA  
GAGAAGGCAAGTTGTGAAAACAGAAAACCTTGAAAACCTACATTAGACTCTGCAGAGCAAAAGGCAAGATCAG  
ACAAAGAGAAGACCCAGCAGATGTTAGATGCTGTCTACTTCTGAGCCCCAACAGCAAGAGCGCACCTGA  
AGAAGTATCAGGACAAGAAACAGAGGTTTTTCAAAATAGTAAATTAATTAATTTAGTTGAAGTGTAT  
AAACACCCACGCTACTTAGACTGTAACCTTGACAAAAGGGAATATTGGCTTATGGAATCATGAGTT  
AAACAACCTTAACCTCCAGGTGGGCGGAGATACACCTGGGCCCCAGGATCAGCAGCTGGAACCTACAAGCC  
CTTTCTCATGGTCACTTCTTGGCATCTATGTGTGAGCTCATCTGTCTGACTGCTGGTGGTTTTCTCCAT  
GACAGGAAACATGATCACTGGCAACCATGGAGATTTATATGGAGTTTCTGTGACAGGAGAGAGAATCCCA  
AGAAAAGGTCTTATTGACCCAGTTTAGGTCAAGTGCTTATCCCTGCTAAACCCACAGTGGCTAGGGATGG  
GATATATGATTATTTTATATCTCTAACAAGTGACCAGGAGTGTAGAGTTCTATGACATCATGTGTCTATC  
ATGTGAAGCTCAGGGGAAACCATGTGTGTCTACTTCTGTGTCTAGTGTCTAGGAGAATATAGTAGTGCTTC  
TTAACTTGCTTAGATTTCCTATACCTTATAAAGCAAATATTTGAGAGAAATTTTTAAAGGCCAACTGA  
TCATCTGGGGCAATTTTTAAATATATGTCACCTTCCATATATAGTTGCTTATGAACTTATACCTTA  
AGATATCTTAAACATAAAGTCAATGATATAGCATTTTCACTTTTTCTCTTTAACTTCTGTGTGT  
CACTTTCTTGATTGTTTCTATCTCTCTTTTTATTTTTTGGAGACAGAGTCTCACTCTGTTGCCAGGCTG  
GAGTGCAGTAGCATGCTCATGGCTCACTGCAGCTCGACCTCCTGAGCTAAAGCAGTCTCTCACTGCAG  
CCTTCCGAGTAGCTGGGCTATAGGCGTGCCACCACCACTAATTTTTGTATGTTTTGTAGAGACAGG  
GTTTCAACCTGTTGGCCAGGCTGGTCTCAAACTCCTGGGCTCAAGCAATTTCTCTGCCTTGGCTTCCAA  
AGTGTGGGATTACAGGTGTGAGCCACCGTGTCTAGTCCCTTATTTTTATTTTCAGTCAAATCTGTTTTCC  
TTTGGTCACTTGTAGTTCACTTCTCACTTTTTAGATGATTAGTGTTTTCTTGCCTGAGTTCAACTCTC  
ACATCTAGATATCTTGGACTATTCTGAATTATACATTTCTGATTCAAAATAAAGTTTTTCCCCCATTT  
TGCAAACTCTTAAACATAAAGTCAATTTTTTTCAGGGGTGTGTGCAAAATTTGTCTGTCTGTCTGT  
CACGGCTGTGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAGATGGAGTTTCGCTCTGTGACCCAG  
GCTGGAGTGCAATGGCATGATCTCGGCTCACTGCAACCTCCACCTACTGGGTCAAGTAATTTCTCTGCC  
TCAACCTCCTGAGTAGCTGGGATTACAGGCAGTGCTACCATGCCCGGCTAATTTTTGTATTTTTTAGTAGA  
GATGGGTTTCCACTGTTGGCCAGGCTGGTCTGAACTCCTGACCTCAGGTGATCCAATTTCTTGGCC  
TCCCAAAGTGTGGGATTACAGGTGTGAGCCACCATGCCCGGCTTGGCTGTCTTTGGGAGTATTTTT  
TTTTTTCATCGCCTGAACAGTTTATAGATAGTAGTCTTCTATTTCTCTTAAAGTAATTTATGTGAAT  
ATAATTTGCCATTTGTCTGTATTCACTTTCAAATTCCTTGAATTGCTCTGGTCTTCAGATGTTTCTACTT  
TAGGGTAGCTGGAGCCAGGCTTACTCACTAGGTTCTTAGTCAATACTACCCTCTCTGTTGGCACAG  
TGAGTGCAGTTTCTAAAGTTTACTAGATCAAGCCTTTTTGGGAGTGAGGTTTATATGATGTCTGATTCT  
GTAATACTGTCTCAATTTGTATAACATATTAATTTCACTGTTGCTTTTTCTTTCTTTTATTACCAA  
GCCTCCAAGGAACACAACCTACCCTCTCCCTCAGAAACCTTGCCCTCTACAACCTGCCATTTTTGGTCT  
TCATGTGCTTCCAAGACCTTGTCTTTCTTCAATTTGTGAGTGTCTGATCCACAGATCTCAGATTGT  
TCTTGGTATTTCAACATTTATGATCTGTCTTGTCTTGGGGTAAGGTTGTCTGTGTTCTACACAGTGA  
AAATTAGCTGCACCTTCTCTGTAGCTGCCTCTGCTGGTTTGAATATTTATTTCCCACTAACATGCAA  
ATTGAAGTTTGGTATTCTCTAGTTTGGCTTTAGGCATGATTTATAGGTAGTTTTTATTGATCTCCGT  
GTTGATCACTAGTTGTTTTGGAGGATGGGTAGAAAAATGTGTTTTAGGGGACTGGTATTATCATTCAGC  
AAATCAGAAGTCCAAAACGTAATTACCTTATGGATGAAAAATAACAAAATAAGCAGCAATAAAATTAAGT  
TTACTCTATAAAAGTGTAAAAGCAAGAAAAATTTAAATGCAAAGGAAATTTAAATAGAGTTATTGTAA  
TAGAAGAGACCATTTTTCTAGCTTAAAAATATTGTTTGAAGTAGAATATATTACATTTAATAATGTTTA  
ATAAGCTAAATTTCTAGTACCAATTTCTGTACATAATACCTGGGTACCCAACTAATAACATATCTT  
GATTTCTGTAATGGTTGTTTGTAGCTTAGTGACTTTCAAGAACTATTCTCAGCTACTCAGGAGGCTGAG  
GTGGAGGTGCAAGTGAAGCAAGATCACTGCACCTCCAGCTGGGCGACAGAGTGAAGTCTGTCTCAAAAA  
ATAATAAATGAATAAAATTTAAATTTAAATTAATAAATGAAACTGCTACCTTCCGAGGTAGTTTTAGA  
TGTAACTCAAGATCTCTGTGGGAACAAGTCAGAACTGGAAGGCTGTGGGACTCGATGGCTGTTTTT  
AGAGAGCTCTTCAAGATGGGCGGGGTGAGATTACTGACCTTACAGAAGTACCATTTTGGAAACAAAT  
AATTATCTTGAATATTCATTCAAGGGATAAATGAGAATCACTTCCAAATGGCCACAGCCATGATCCCA  
AACTGTGTGCCAAGGCACACTGGTGCATGTAAGGATCTCAGCATGCCATGGAAATGTTTTGATTTATTT

FIGURE 1, sheet 9 of 66

FIGURE 1, sheet 10 of 66

GGCGCGGCGAGCTGGGATGCTGGAGAGGACTGGCCCCCTTGAGTTACTGAGTCCGATGAATGTGCTTGCTC  
TGCTGGAGGAACCGCGCTCAGGTTACAGTCATCCCAATATGGTCTGAGGTCGCTGGTTCAGGTCACCTT  
AGGACTTGACAGATACCGGGTTCTTTTACAAGCCGTTTCTGACGGTGGCTGTTTCAACTACTGGCAG  
AGCTCATGTATAAACAGACTTTTAAAAAATTTGGGGGGCTTTTAGTATTTTTTCTTTATCTATATTCT  
GAGGATATTTTATAGTAGTCCACATATGGAATTAGATAATCTCTTTTGTGTTGATTAAACAGTTTATC  
AAGTATAATGTACATACCATAACGTTACCCATTTTAAATGGATTCAATGATTTTTAGCATATTTACAGAG  
TGGTGCAACCATCAGCATAATAGAATTAAGGAATCGTGATTTTTTTTTCTGGTAATTGCTTTTACAGTT  
CTCAAAAGTTTGCAACAGCGGATATTTTAGAGGTACAGTGAATATAAGAGCTTCTGAAAATGTCCACTTA  
AGTTGTTTTATACCTGAGCAAGTGAATTAAGAAGGGAATTGAAGCAAATATTCCTGGTAAGTTGTAGGG  
AGTGAAACTTTTGTGCTTGTAAATACCAAGTAGATATTGACCATTTCAACTGGTTTTTATGCTGAGGAAA  
TGCATAAAACCCATTTTACAGATGATGAAATCGACTTTGAAGGATAAGTTGCCTACAGCTGCATACCTGT  
GCCTGGGCTAGGCCCAACCCAGATGCTTTATCTCTCAATTTGTTACCCTTGCTACCTCAACAGCTTGG  
TTTTCAACCATGGTACTGATGAGTATGAACAGTACAAGCCATTCTTTACTGAGCAAATAATTATTGAGT  
GCCACTCTGTGCCAAGAACACTGCTATAGGTGCTAGAGATATTATTGAATCAGATACCGTAGTGAACGT  
TCCTGCCCTCAGCTCATCTTCTGGTGGGGAGGACAATGATCAAGTAAAGAAATATATAGTTTTAGAGATT  
CATCTATTTTTTAAATAGGTAAATTAAGAGGCAAGGAATGGCAGTGGGAGGAGAACTCTGATGAGAAAA  
ATCTGAATGAAGAGAGGAAGTTAGGATATAAGAAAGAAAGCAAGGGTTGATTTGAGCAAGCGCAAAAT  
AGAGTTGTGATTACTGAATTGAAATAGGTGATCTGGAAGGACCAGGTTTTGGGGGTACAATCATAG  
TTTGGCTTTAAATGTTTTAAATACCTTGCCCTCTTAGACATCCAAGTGGAGATATGGCATTTAAATTCAT  
GAGATTGAGTGAATCCCAACAGGACAGGTTTAGGTGAGACAACCAATACCGATGCCTAGGACAC  
TGCAGTGTTTAGAATTCAGGAGATGAGAAGGAAACAGGAGGGAAGATTGAAAAGAAGAGTCCAGTGTGT  
TATGAGGAAAACCCCAAGAGCATGCTGCCCTACAAGACAGGTGAAAATGTGTCTGTGAAAGAAAGAGT  
AATTAACGTGTTAAATGTTACAGACTGATCAATAAAATGAAGACTGAGAATGGCCTGTTTGTAGGTAAT  
AAAAATGAGTAAATCTTATGATGATAAATTTATACATAAAGTTAGTAAGGAAACAGTGTTTACTCCTT  
TTTGTAGAAGTGAATTTTTACAACCATTTTGAAGGGCAGTTGATATTATCTACAACCTAAAATTTGTG  
CTTCATTGATATTTACCTGTGGAAGTTTATCCTACAAAAATATTATATGTGCACACAAATATGTGT  
AAAAGTGTTTATCACAGCTTGTACACATATATATTTATAAATGTGTGTCCAGGAACAGTGGCTTATGCC  
TGTAATCCCGAGCACTCTGGGAGGCCGAGGTGGATGGATCACTGAGGTGAGGAGTTCGAGCCAGCCTGG  
CCAACATGGCGAAACCCCGTCTCTATTTAAAAATACACACACACACACACACACACACACACACACA  
CACACACACACAAATAGCTGGGCGTGGTGGCGGACGCTGTAATCCAGCTACTTGAAGGCTGAGGCA  
GGAGAATCACTTGAACCCGGGAGGTGGAGGTTGCAGTAAGCCGAGATCACGCCACTGTACTTCTAGCCTG  
GGTTACAGAGTGAAGTCTATCTCAAAAAAAGGTTGTTTATCACAGCATTTGTT  
ACATTTGTAAAAAGGTACAAGTTTTCTCAAGATGGATGCAGTTGTTAAAGGGAAGATATAAATGTGTAG  
ATATGGGAGATAGCTGTATAGACGGAATTGTGTCCCTGAACCTTTCATATGTTGAAGCCCTTACCCTGA  
ATGTGGTGGTATTTGGAGGCAGGGCCTTTGGGAGGTAGTTTGTATTTAGATGAGGTACAGCAGATGGGGC  
CCCAGATGGGAGTGTGTCCTTATACAAAAGAAAGGAGTCCAGAGCTTTCTTCTGTCACTGTTTAA  
GGACATGGTGAAGGCAGCCATCTGTAAATAGGAAGAGTCTCACAGGAAGTGAAGTGGCTGTCAACC  
TTGATCTTGGTCTTCCAGGTTCCACAGCCATGAGATATGAATGTCTGTTTTTAAAGCCACTCAGTCTGT  
GGTATTAATATTTTGTATAGCAGCCCAAGTTAAGACAGATAGCTTTGTTAAATGATAAAGTCAGGTTAT  
CTAATGAGATAGTATAGTATAACCCCATTTATCTTAATGTATACAGAGGCGCTTCTAGTCACACTAACA  
AAAGTTACTCCTTTGTGTGCCCTTCCCTGATCACTGTTACATTATTCTATGTACAGCACTTATTATCTAAA  
ATTATTTTCAATATTTTATACATGTTTACTGGCTTGTACAAATAGAAAGGTAAAGCTCTGTAAGGGGTTG  
CCTCTCTGTTTATATCCCCAGTGCTAGGTATATATTACTTTAGGAAAAACCATTTATTTATAAAAATAT  
TTTAGGAAAAACCCCTACACAAACAGTATTCTGTAGTGGTTTTAAATAAGACAACAGGCTGGGCGTG  
TAGCTCATGCTTGAATCCAGCACTTTGGGTGGCCGAGGAGGCGGATCACCTGAGGTGAGGAGTTTTG  
AGACCAGCTTGCCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAGTTAGCCTGGCCTGGCGTC  
ACAGCCCTTTAATCTGAGTCACTTTGGGAGGCCAAGGCAGGAGAACTCACTTGAACCCAGGAGGCAGAAGTT  
GCAGTGAGCTGAGATCGCACTTATGCAACCTAGTCTGGGCAACAAGAGCAATGTCTCAAAAAATAAAA  
TAAGACCACAATTTCTTTGATAGTGTTCCTTCCAAAGGTGGTGGCTAATTCCTCTCTCTTGAATGTAG  
GCTGGATTTAGTGACTTGTCTATGTGTAGAAATATGGCAATGTGGAGGTATGTCAATAGGTATGAAT  
TCCTTTTTGTTCTCTCTCTCGATCATTCACCTCTGAAGTAAAGCAGCTGCCTTGTATGAGAACATATCA  
AACAGTGTGTGGAAGGCACATTTGGTGAGAAATAGGCCTACTCCCAACAGCCAGGGAAGAACTGAAGC  
CTTCTGTGACATGTGAATGAGCCACCTGAGAAATGTATTTTTCATCCTCAGTCAATCAGTGTCTCAAAAG  
AGGCCGTTAGCTGGATCCCTCAACAAAGCCACTTTTGGGTTCCTTTCAGATAATACAGGTTTGTCTTTGTA  
ATCTACTAGGTTTGGTGGTAGAGTGAAGACTGAACACACTCCCTTTAGGACACATCATAAAGCAAAA  
CAAGTATGGCCCAAGTAGCATACACTTAATGTCTTTTCTACTAGGATTTACAGAAATTCATTGTTGGTA  
CAATTTACTCTTTTAAAAAATATTTTATGTTGATCAGAATAAAATACGGTATTCCAAGCTATATGTGC  
TAACTTGATTTTTATTTAAAAATGATTGAACTGGAACACACAGATTTGAAAGATTGACCTTAATAT  
ATATTTATATATAAATATGATTTGAAATAATGAACTTTAAATTTAAAAATATAAATAATTTTAAAA  
TGCCCTCTTTAGGTAAGAACTCTTCAAAACAACTTCTCATATGATATGGTTTGTCTGTGTCCCAACC  
CAAACTCTCATCTTGAATGTAGCTCCCATAAATCCACATGTTGTGGGAGGAGCCAGTGGGAGATAATT  
GAATCATGGGGGTGGTTTCTCCCTGTTGTTCTCGTGTAGTGAATAAGTCTCATGGGATGGTTTTAT  
AGGGATTTCCCTCTGTTTGGCTCTCATTCTACCTTGCCCTGTTGCCATGTAAGATGTATGTTTCACCTG  
CCATGCTTGTGAGGCCCTCCCAAGCCATGTGGAACGTGAGTCCATTAACCTTTTATTATAAATACCC  
AGTCTTGGGCGATGCTTTATCAGCAGTGTGAAAATGGACTAATACATCATAAAGAAATTTCAATGCAAA  
AGTTGAAGTCTGAACATAAAGCTACAAAGAAATAATGTTTAAATAGCCATCCAGATAGTGTCCCTGAA  
ATACGATGTCAAGGATCTAGAGGAACATATTGTATCTTAAACAGAATTAAGTCTGAAAACAGTATTC  
AGAGTCTTAAAGAGGCAAGCAGGACTTAACGGAACGAATTATAAACTAAGGTAGAAATTCAGTTTA  
TTTTTGAACATGTCTCTCATATAAGCTCACATATAGCATATGAGCTCCATGCTCTGATTGATCAGTT  
TAATTTTATGGAATTTCACTTATTGCTGGTATAACATTATTACAATTTTCTATTATAAGACTGTGATT  
ATCAAGGTCAGGATATCAAGACCAACCTGGCTAACACGGTGAACCCCATCTCTACTAAAAATACAAA

FIGURE 1, sheet 11 of 66



AATTAGCTGGGCGTGGTGGTGGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGACAAATGGCGT  
GAACCCAGGAGGAGAGCTTGCAGTGAGCTGAGATCGCGCCACTGCCCCACCTCCAGCCTGGGCGACAG  
AGCGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAGATTGTGATTATCTGGTCAATGTGTGTAGAGAGGAGA  
TGTTTGGATCATATACGGTACCCTTTTTTTTTTTTTTTTGGATGGAGTCTCACTCTGTCCCCAGGCTGGAG  
TGCAGTGGTGCATCTCCGCTCACTGCAAGCTCCGCCTCCTGGGTTCATGTCTCTCTGCCTTAGCCT  
CCCGAGTAGCTGGGACTACAGGTGCCACCAGCACACCTGGCTAATTTTTTGTGTTTTTAGTAGAGATGG  
GGTTTACCCTGTTAGCCAGGATGGTCTCGATCTCCTGACCTCGTGATCCACCCACCTCGGCCCTCCAAA  
GTGCTGGGATTACAGGCGTGAGCCACCGTGCTGGTTACAGTACCCTTTTGATAGCAGGAGAAAAGATG  
GTCATTAATGTATCCTCTTATAATAAGAGTAATATTTAAGAAAGCCACAAAATATGAAAAGCTTTCTAT  
CCAGATTACATTTCTGTTGTAGACCATCTTTATCTGTATTTACTGTACGTTAGACCAATTGATACCTT  
TCATTTTCTCTGGGTTTGCATTTCCGAGATCACTTTTAAAGGAAAACATAGGAGCCTGAACAGAAAG  
AGTGAACAAATATTTACTCAAACCTAAGAGACTAACTCAGTAGCCAGCAACAAGAGATCAAGGTGTGTG  
TGTGTTTTCTGGTTGTGCAGATATTGTCTGAAATAAGATGGCTGAAAAGTTCAAGTGAAAAAGTAATTAA  
AAGCAATTCATCAACCATAGCCATAGCTGGATGTATAATAGCTGATCAGGCATAGCAAACTCTTCAGGAT  
AATTTCATTTTTAAAAATTTATGTCTTTGTCTTTTCATCTTCAAGCACAGTTTCAATAAGACTACAG  
TGTAGGCTTACAGGACCATCAGTTTTTTGTCTTTAGTGCTAAAATGGTGCTGAGTGACACACCATGAT  
TTTTTCTCAATATTTTCATCTTACCAGTGTGGAAAAGGGAGAGAAGGACTCTCTGAAGGAGACTGT  
GCAAGGATTCTCTTTTTTTTTTTTTTTTTTTTGGATGGAGTCTCACTCTGTGCCCCGGGCTGGAGTGC  
AATGGCATGATCTCGGCTCATGCAACCTCCACCTCCCTGGTTCAAGGGATTCTCTTGCTTAGCCTCTTT  
AGTAGCTGGATTACAGGCGGCCACCACGCTCGGCTAATTTCTGTATTTTTAGTAGAGAAAGGATGTC  
ACCATGTTGGTCAGGCCAGTCTCGAATCCTGACCTCGTGATCTGCCACCTCGGCCCTCCGAAAGTGCTG  
GGATTACCAGCGTGAGCCACTGGGCCCCGGCCCCAAAGGATCTTTTACACCATGTCTGGTTCCAGCCCT  
TTTTCTATCCTTCTGTGCAGTGTGGACTGAGTTGACTGAGATATTTAGGCCAGGACTTCTTGCTTGTG  
TCTATGTGATTAGGAAAGTGTCTCAAAATATCCATCACTGATTAAGGATTTGTCTGTTTATTAGTTCT  
ATCAACATTTATTTTTTAACTTTGAAGCTATTTGCATACAAATGAGGATTTTTATCTTTCTATTGAATT  
GCCCTTTTATCTGTTATGAAATCTCACTTATTTTCATGTAATACTTTTTGCCCTATAGCTAGGTTGTCTG  
ATATTAACATAGCTAGATAATTTCTTAGATTGCATGGTATGTATTTTCCATTTTTCATTTTCAATCT  
TCTAGGTTGATTAGGATATGCTTTTGTAAACAGCATATAGTTTGTGTTTTTAACTAGTCTTATAATCT  
TTGTCTTTTAAATGGAATGTTTAGGCTATTTACATTAAATCTGATATTGTTGGATTAAAGTCCACCATA  
CTGCTACTTACTGTGTTTTTCTCCTCTGGTCTTTGTTCTGTGAATAATAGTTTGTGTTTTGTATTGT  
TGATTTTTTTTTTTTTTGTCAAGATGGAGTCTCTCTGTCAACCCAGGCTGGAACGCAGTGGTATGATC  
TCGGCTAAGTGCACCTCAGCCTGCCAGGTTCAAGCAATTTCTGCTCAGCCTCCCGAGTAGCTGGGA  
TTACAGGTGCTGCTGCCATGATGATTAAATTTTATGTGTTAACTTAGCTGGGCTGTGTTGCCAGATAGT  
TGTTTAAACATTATTCTGGATGTTTCTGTGAAGATGTTTGGATGAGGTTAAACATTTAGATCGGTGGAC  
TTTGAGTAAAGCAGATTACCTTTCATAATTTGGGTGGGGCTCATCCAATCAGTTGAACATCTGAAGAGAC  
CAAAAGACTGACCTTCTGCAAGCAAGAAAAATCTGCCAACAGACAGCCATTGGACTTGAATCTCAACA  
TTGACTCTTCAGTCTATTGGCCCCACCTGCAAAATTTGGACTTGCCAGTAAGTGTCTGAAATCTAGTGAG  
GCAATTTCTTTCTTTTTTTTTTTTTTGGATGGAGTTTCGCTCTGTGTGCCAGGCTGGAGTGCAGTGG  
TGCGATCTCAGCTCACCCTAACCTCTGCCTCCAGGTTCAAGTGATTCTCTGCTCAGCCTCCTGAGTA  
CTGGGTAAGTACAGGCTATGCCACCGCTGGCTACTTTGTATTTTTAGTAGAGATGGGTTTCTCCA  
TATTGGTCAGGCTGGTCTCAAAATCCCAAACTCAGGTGATCCACCCGCTTGGCCTCCCAAAGTGCTGGG  
ATTACAGGTGTGAGCCACAGTGCCAGCCTAATTTCTTCTTTCTTTCTTTCTTTTTTGGAGACAGAGTT  
TTGCTCTTTTGACCAGAAAGGAGTGCAATGTGGCAGGATGTTGGCTCACTGCAACCTCCACCTCCTGGC  
TCTCTTAGTGCCTTCTCTTACCATGTGATCTACACACACAGTATCATAAGGCATCTTCTGATCCTTT  
AGTGTTCACTCTCCAGTACCTTTAATATTTGCCTTCAAATTTCTCAAATTTCTTTATTTACTTCCATTTT  
TCTCTACAATAATTTAGGCGTACTTAAAGTAGAATTACAATATAAATAATTTTTAAATATCTACAA  
CTAATACTAAAGGGTTACTTTATTTTATTTAAATTTATTTTAAATAAGAATTTAAATATCTGCAAC  
TAATATCAGAGCCAAGGGCTACTTTCTTTGAAATACAAAGAGTCTTTAGAGTCAGACTGTGATGTTTCT  
AATCTGGGATCTACCTCTTATATTGTAGGTTTAGACAAATTGCTAAATATTTCTGTCCAGTTTCTCA  
TCTACAAATGGAAAAATAGCTTCCCTTTGTGTCTGCCTTGAGTAGAAGCTTCTGAGGCCCTCATCC  
AAAACAGATGTTGGTGCCATGCTTCTAGTACAGTCTGCAGAACTGTGAGCCAAATAAACCTCTTTCTTT  
ATAAATTTACTGACCTCAAGTATTCCTTATAGCAACAAAGAGTGGACTGAGATACCGTGTGTGATGCT  
AATCCTTATAATATTCTACTACCCAGGCAGATATTGCTCTCCAAATGTCTTCTTAAAAAGGATGGTT  
TCTGAAATGACACCTCTTGGGACTATTGGAATTAAGTGAACAGCTGTTTTCATTAGAAATCTTTTTTTTT  
TTTTGAGACAGGCTTGTCTGTGCGCCATGCTGGAGTGCAGTGGTCAATTTCAAGTCACTGCAACCT  
TGCCTCCAGGTTCAAGTATCTCTGTCTTGGCCTCTGAGTACCTGGGACTACAGGTGTCACAC  
CACACCCAGCTAATTTTTGTGTTTTTAGTAGAGATGGGTTTCAATTATTTATTTATTTTGTAGACGAAG  
TCTCGTTGTGTACCCAAAGCTGGAGTGCAGTGGCGTGATCTCGGCTCACTGCAACCTCCACCTCCAGGT  
TCAAGTGATTCTCTGCTCAGCTCTGAGTAACTGGGACTACAGGTGCACACCCTATGCTGGCTAA

FIGURE 1, sheet 12 of 66

FIGURE 1, sheet 13 of 66

TAGCTCTTCCTTTAATAACTGTATAATATTCTATAGTATGCATGTATCTTAATTTATTCAACCACTTTCTC  
 TTTTGAGGGATGATATAATTATTCTCTCTTTTGGTCACTACAAATAATGTGAAAATAGTATCTTTCAA  
 CTTATATCTCTCCACACTGGTGCTTTTGTGCTAGGGGATTAATTGACAAATATGAGCTGATAGGGTCAC  
 AGTGCCTGATTTTAAATTTCTAATAGCCATTGTGAGATTACTATTGCAAAAGGATAGAAGCAGTTCAATTA  
 AGAGTAAATCATCTCTCTTTACATCCAGCTAGCATTGAATGCTGTCTATTCTTTTGTGTTAGTTGGGT  
 AAAAAAGAAACAAAAACAAGGTACCTCATTATTATTGTAATTTACATTTTCTTGACTACTAGTGAAGA  
 TAAGGATCTTTTTTTTTTTTTTTTTCTTTCTGTGGAGATAAGGTCTTACTATGTTACCCAGACTGGT  
 CTCAAAACCCTGGATCAAGCTATCCTCTTTCTCAGCCTCCCAAAGGGCTGAAATTACAGGTGTGAGTCA  
 TTGCACTTAGCCAGTAAGCATCCCTCTTCTTTAAAAAATAATTTACAGGCCAGGTGCAGTGGCACATGCC  
 TGTAAATCCAGCACTTTGGGAGGTCAAGGTGGGTGGATCACCTGAGGTGAGGAGTTCGAGACCAAGCCTGG  
 CCAAGATGGCAAAACCCTGTCTCTACCAAAAAATACAAAAATTAGCTGGGCATGGTGGTGGGTACCTGTAA  
 TCCCAGCTACTCGGGAGCATGAGGCAGGAAATGGCTTGAACCCAGGAGCGGAGGTTGCAGTGAGTGA  
 GATCATGCTATTGCACTCCAGCCTGGGTGACAAGAGCAAACTCTGTCTCAAATAATAATAATAAATTT  
 TTTATTTTATTATAGATTAAAGGGTACATGTGAGGTTTGTACATGGGCATAATGCGTGATGCTGAGG  
 TTTGGGTTACGTACCAGGTAATGAGCTTAGTACCCAATAGGTGATTTTGCATCCCATGCCCTCTCTC  
 CCATGCTCGGTAGTCCCAAGTGTCTATTGTTCCACCTTTATGTTTATGTGATTCAATGTTTAGCTCCC  
 ACTTATAAGTGAGAACATGTGGTATTGGCTTTCTGTCTTGTGTTAATCTGCTTAGGATAATGGCTGCC  
 AGTTCATCTATGTTGCTGCAAGGATGTGATCTCATTCTTTTAAATGGCTGGTAAGCATCTTCATATAT  
 GCCTGTTGACCACTGGGCTTTTCTTTCTACAAATGGCTCCTTCTTCCCATAAATTTGGATCTTAGGTGC  
 AGAAGATTGTGCTTAATCAAATTTCTAAATAGTGTCTTGTCTATGGGGACATAATGGTCCATCTCTATT  
 AATTTTATTGTTTTTGGTTCCATTCCCACTTCCATTCTTATGCCCATAGGTAGCCTCACTTAAATGTG  
 TTTATGCTATCATTTTTGTTTATGTGATTAAAAAATCATTATTGGGATATTTACATGCCATAAAATTCAC  
 TCATTTAAAGTCTACAATTCAATGATTTTTAGTAAGTTAATAAAGTTGTGCAAAATGCCACCACAATCCAG  
 GTTTGAGACATTTCCATCACCCAAAAAGATTTTTTTTTTTTTTTGCTTCTAGACAATAATAGCCCTCT  
 CCATCACTAGTGCCGGGCAACCACCAATCTGCTTTCTGTGTATACATTTTCTTTTTTGGACATTTT  
 ATAGAAATAAATAACTTTAATATGTAGTCTTTTGCATCTAGTTTTTAAATTAGCATTGTTTTTGGAGT  
 CATCTATGTTGTAGCATTATCAGTATTGTGTTCTTTTTATTATTTAATGGTATTCTATTGTGTGGATAT  
 GCCACATTAATAAATAACTTTATTTTTTGGAAAGCAATTATAGGGTTACAGAAAAATTGACTATAAAGTA  
 CAGAGATCCCATAACTTCTTCCCATCTTACAGTAACAAATGCATTAGTGTGGTAAATTTGTTTACA  
 ATTGAGTTAACATTAATACATTATTATTATTATTATTGAGCGGAGTTTCGCTCTTGTACCTAGGC  
 TGGAGTGCAATGGCATGATCTCAGCTCACTGCAACCTCCGCTCCTGGGTTCAAAAGATTCTCCTGCCTC  
 AGCTCCTGAGTAGCTGGGATTACACACATGCACCAACACACCCGACTAATTTGTACTTTTTTTAGTAG  
 AGACAGGATTTACCATGTTGGTCAGGCTGGTCTTGAAGTGTGACCTCAGGTGATCCGCTGCCTCAGC  
 CTCCCAAGTGTGGGATTACAGGCATGAGTCACTGCCTCAGCCTGATACATTATTATTAACATAAGT  
 CGGGGTTTACATTAGGATTCATTCTGTAATGTACATTCTATGGGTTTTGAAAAGTGTATAATTACAAGTA  
 TCCATCTTACATCATCATACAGAAATGGTTTCACTGCCCTAAAAATGCTGTGTTCCATCTGTTCACTT  
 CTTCTCCTCCTGCAAACTCTGGCAACCACAACCTTTTTTTTTTTGAGATGGATGTCTCGCTATGTTGCC  
 CAGGCTTATCTCAAACCTCTGGGCTAAAGCAATTCTCCTGCCTTAGCCTCCTGAGTAGCTGGGACTACAG  
 GTGTATGCCACCATGCCCGGCTGATCTTTTTACTACCTCCGTAGTTTTGTCTTTTCCAGAATGTCGTGT  
 ATTTGGATCATACAGATATAAATCTTTTACGATTGGCTTCTTTCACCTAGTAATATGCATTAAAGTTTTC  
 TCCATGTCTTTTGGTGGCTTAATAGCTCATTGCTTTTTATTGCAATGTGAATAAAAAGCATTTTTTTTTT  
 GCAAAATAATATTCTGTTGTGCAGACTTACTACATTTTAGCTTCCATTACCTAATGTTAAATCTTCGT  
 GCTTCCAATTTTTGACAATTATAAATAAGCTGCTATAAGCATTCAAGTGCAGGTTTTTATGTGGACATA  
 AATTTTCTATTGTAATGTAATAAATCAATCTCTAAACCTAGGTCACTTACATTTTCTCCTACGTTGCTTCT  
 TTTGTTAGAACTGCCAACTGTTTTTACAAAATGGCTGTTCCATTTTGCATTTCATCAGCAATGAATGA  
 GAGCTATTGCTGTCACTCTCACATCCTACCAGCATTGGTGTGTGCTAGTGTCTGGATTTTAGCCATTT  
 GAATAGGTGTGTAGTGGTATCTCATCATTGTTTTAATGCAGTTCCCTAATGACATATGATGTTGAACAT  
 CTTTGCATATGCTTATTGTCATCTGTATCTTCTTTGATGAGAATTTGTTGAGAACTTTTGGCATT  
 TTTAAATGAGTTCTTTATTTTCTAGTTGTTGAATTTTAAATTTTATTGTTATTTTGGGATAACAATC  
 CTTTATCAGATATATCTTTGCAACAATATCTCCAGTCTGTGGCTGTCTTTTTATTTTCTTAATAG  
 TCTCTATCACAGGGCATACTTTTAGTTTTAATGAAGTCCAACCTGTGAGTTTTTTTTTCTGAACTCTT  
 GCTTTTCTATTGTAATGTAATAAATCAATCTCTAAACCTAGGTCACTTACATTTTCTCCTACGTTGCTTCT  
 AGGAGTTTTATAGTTTTGTACTTTACATTTAGGTCTGTGATGTATTTGAGTTAGTTTTTGTGAAGGTGG  
 TATGAGGTCTGTGCTGGATTCATTTTTGTTAATGTGATATGTAGTTGTATGTAGTTGTTCTAGTACC  
 ATGTGTTGAAAAGACTATCCTTTCTTGATTGAATGCCTTGTCTTTGTTAAAGATCAGACTTTGGATG  
 AGTCTATTTCTTTAATTTCTTTTCAATCCAAAGTTTAAATAGTCTCATTTAGACTTTTTTTTTTTTTGAG  
 ACTGGGTCTCTCTCTTTTACCAGGGCTGGAGGGCTGGAGTGCAGTGTGCAATCACAGCTCACTGCAGCC  
 TTGACCTCCTGGGCTCAAGTGATCCTCCCATCTCAGCCTCCCTAGTAGCTGGGATTACAGGCACATGCCA  
 ACCACGCTGGCTAATTGTATTTTTGTAGAGATAGGATGCACCATGTTGCCAGGCTGGCCTTGAACCT  
 CTTGGGCTTAAGCAATCTGGCTGCCTTGGCCTGCCAAAGTGTGGGATTACAGGCATGAACCACAAACC  
 TGGCTAGCTAATTTAAATTTTTTCTTTTGTAGAGATGGAATCTGTGTGTTGACCTGGCTAGTTTCTA  
 ATTCTTGGCCTCAAATGATCCTCCACCATGGCTCCTGGGGTGTGGGATTACAGATGTGAGCCACCAC  
 ACCCAGCATATTTGTTAGATTATACCTAAGATTTTAACTTGCTTGATAATTTAAATTTTTTTTTTTTT  
 TTTTTTTTATTTTGTAGATGGAGTTTCGTTCTTGTGCCCCAGGCTAGAGTGTGGTGGCCAGCAT  
 TGGCTCACTGCAACTTTTGCATCCAGATTCAAAGGATGCTCCTGCCCTAAGCCTCCCAAGTAGCTGGGAT  
 TACAGGCATGTGCCACCATGCCTGGCTAATTTTGTATTTTAGTAGAGACAGGGTTTTACTATGTTGGT  
 CAGGCTGGTCTCGAACTCCTAACCTCAAGTGATCCACCTGCCTTGGCCTCCCAAAGTGTGGGATACAG  
 GCATGAACCAACCGCACCCGGCGATACCTTAAATGTTATTGTGCTTTTAAATTTCAATTTCTAATGTTCA  
 TATTTGGTATATTAGGAAAGCAATTGACTTTGTATATTAACCTTGATTTTGAACCTTGCTGTAATGTG  
 TTATTAGTTCCAGAAATTTAAAGTCAATTCTTTGGGATTCTACATAGAGAATCATGTAATCTGTGA  
 ACAAAAACAGTTTCATTCTTCTCTTTCAATCTGTATTAATTTCTTTTCTTTTCTTGGCTCATGCACT

FIGURE 1, sheet 14 of 66

FIGURE 1, sheet 15 of 66

TTATATTTTTATTGAAGAGTTTCTTATAGATACCATATAGTTAAACATCTTTTAAATCCCCCTCTGCTAA  
CTCTGTCTTTTAACTGGGGTATTATTTTTATTATTTTTTTCTTTTGTGATGGAGTCTCACTCTGTTTC  
CCCAGGCTGTAGTGTAGTATGCTCACTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAGTGATTCTC  
CTGCCTTGGCCTCCCAAGTAGCTGGAATTGCAGATGTGCACCACCATGCCTGGATAATTTTTTGTATTT  
TTAGTAGAGACTGGCCAGGCTGGTCTTGAACCTTTGACTGTATGGGAACAGACACAACTCTCCCAAT  
AAGCACAAACAAAGAGACACAGAAGCAGTCCAAGCCTCTGATAAACTCTCCCATCTGAATCCTTAAAAAT  
GCTTAGTCTGTAAAGAGGATGTGCCTCTGACCTAACTCAGCCAGACGCCCTCTCAGGTTTGTCTTTCTA  
AAATAAACCTGTCTTGAATTTTACTGGCAAGCCACCTTTCTTTTCTCTCTCTTTCTTTAATTCCTACACTGACTT  
CAAGTGATCTGCTTGCCTCGGCCCTCCCAAGTGTGGGATTACAGGTGTGAGACTGCGCCCGGCCTAA  
CTGGTGTATCTAGACCATTTACATTTAATGTAATATTGCTATATTAGGGCTTAAGTCTTCTTTTCATT  
TTGTTTTCTCTGTTTTTAAATTTCTGTTTTCTTTTCTTAATTTATGCTTGTCTCTGAAACATTTTTT  
AGAATTCCTTTTGAATTTTATAGTTTTTGTATGATAAACATATATATTGGTATAGCTTTTTTAGTGG  
TTGCTCCAGGTATTACATTTTGTATATATGACTTAATACAGTGTATTGATGTCAATTTTACCAGTTTGA  
AAAGTATAGAATCTTAGCTTCCATTATGTCTCTACTTTTCCCTGTTTATATAATTATCTTAGCTATTTT  
CTCTTCATACATTTAGAACCACATCATACAGTGTATAGTTTTTGTCTTAACCATCAACATATTTTAGA  
AACTCAAGAGAAAGAAAGCCTATTGTATTTTACCACAGTTTTGTCTATTATTTTTTGTCTCTCTGATG  
TTCCAAGATTCTTTCAATTTTTAAAAATCATTTTCTTTCTGTTTGGAGAATTCATTATTTAGTAAGTCTT  
TTGTTTTTGTTTTTTGTTTTTTTTAGAGATGGGGTATTGCTGTCACTAGGCTGGAGTGCAGTAGTGTG  
ATCATAGCTCACTGCAGCCTTGAACCTCTTGAAGTCAAGCAATCCCCCTGCTCAGCCTACCAATAGTGG  
TACTACAGCATGCACCACCATGCCTGGCTAATTTTTTTTTTTTTTTTTTCTGAGATGGAGTCTCCCT  
CTGTCAACCCAGGCTGGAGTGAATGGCGTGATCTCAGCTCACTGCAACCTCTGCCTCCAGGTTCAAGCA  
ATTATTTCTCTCTCTCTGCCTCTCTGAGTAGCTGGGACTACAGGCACACACCACACCTGGCTCATTTT  
TGTATTTTTTAGTAGAGACAGGGTATCACCATGTTGGCCAGGCTGGTCTCAAACCTCTGACCTTAGTGAT  
CCGCTTGAAGTACGCTCCCAAGTGTGGGATTACAGCGTGAACCACTCCCAAGTGTGTTTGAAGT  
TTTTAAATGTAAAGCAAAATTTGTTCTACCAGCAGTGAATCAAACAGTAGGTTTTGAAACGTCAAGAAGCC  
CAAACACAAATTTAAGTTAGAGTTTTGTAAGTAATATAAGTTCTCCTTTAAATGCATTTTAAATATTA  
ATAATTTCTTTAGTATTGCTTAACCCCTGTAAAGTCACTAGGGCTCCATAATTATTTTGAACCAACTC  
CTAAGTTAATATTTCTTTCACTGTAAATTTCAAGCATCCTTAAATCTTCTAAGCACAGCTATAAGTTGAATG  
ATTTTAGAGAACTGTGAGTAAAAATCTAATATGATAAAATGGCTCCATTTTGCAGGGAAGGATGTACTGG  
TAATTGACAGAAATGACCAGGAACATGGAATAGGAGTAGGTGAGACAGATTGAATTGTTAAGTATTTT  
GAATATACTATAAATGAGATATAAATGATTTTTGAAATCAATATGCAATTTTTGTTGTATCTAATAAGG  
ACTTTTAAAGTACGATCAAGAAGGAGAGATGCAATATTACTGTGTTTAGCCTTACTAAGCAAGGAA  
GTACTGTACGTAAAAGTTCTCTGGCGCGGTGGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCGGAGGC  
GGCAGATCACGAGGTCAAGAGTTCCAGACCAGCCTGGCCAACATAATGAAACCTCGTCTCTACTAAAAA  
TACAAAAATTAGTTGGCGTGGTGGTGTGCACCTGTAATTCAGCTGCTTGGGAGGAGAGGAGAGAA  
TTGCTTGAAGTACGAGAGGTGCTGAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGTGAAGT  
AGAGAGAACTCCGCTCAAAAAAAGTTCTCCGGCATTTTTTGAAGGAGGCAACTGCACTC  
ATAAAATTTTACCTTTGGAACAGAATCTTTATAGTTACATAATCAATGAAAGAACAGATTGATGACAA  
TATTGAGCTTATGAATTAATCAAAATTTGAAGCTGCTTACACCCAGAATTATTATTATTATTATTAT  
TATT  
ATCTTGGCTCACTGCAACCTCCGCTCCAGATTCAAGCGATTCTCCTGCCTCAGCCTTCCGAGTAGCTG  
GGATTACAGGCACCTGCGAGCTGCTCGGCTAAGTTTTGTATTTTAGTAGAGACGAGCTTTCTTTTTTT  
TAAGACGGAGTCTCGCTCTGTCGCCCAGGCTGCAGTACAGTGGCGTGATCTCGGCTCACTGCAACCTCTG  
CTTCCCGGTTTCAAGCATTCTCTGCTCAGCCTCCGAGTAGCTGGGATACAGGCGCCGCCACCAT  
GCCCCGGCTAATTTTTTTGATTTTTTATTAGAGACGGCGTTTTGCGGTGTTAGCCAGGATGGTCTCGATCTC  
CTGACCTTGTGATCCGCGCGCTCAGCCTCCCAAGTGTGGGATTACAGGCGTGAGCCACCGCGCCTGG  
CCAGAGCAGGCTTTACCATGTTAGTCAAGCTGTCTCGAAGTCTTGGCCTCAAGCCATCCACCCACCT  
CGGCTCTCAAGTGTGGGATTACAGGTGTGAGTACAGTACCCAGTTTATACCCAGTCTTGTGTAAGT  
AGATGTTACATCTCCCTCTGTTTGTAGTTCACTTACGCAAGATTCTCTATTTTTTTTTTTTTTTTTT  
ATGGAGTTTCACTCTTGTGCCCAGGTTGTAGTGGCAATCTTGGCTCATTGCAACCTCTGCCTCCCA  
GGTTCGAGCAATTTCTCTGCCTCAGCCTCCAGAGTAGCTGGAATTACAGGCGCTGCCACCAATACAATA  
CTTTTTTGTATTTTAGTAGAGATAGGTTTCACTATGTTGGCCAGGCTGGTCTCAAACCTCTGATCTCA  
GGTGATCCACCCACCTCGGCTCCCAAGTGTGAGATTATAGGCATAAGCCACTGCACCCGGCCTAAGA  
TTCTCTATTTAGAGATAAAACAACCTGTTAAATATTATACCACAGTGTGCTTGGCCTATGTAACAT  
CTGCTTAGATAACATACTCTCTTAAGCAGTAAATGAGTATGAGTTACAGGGGCTCTCTTTTGTCTTTA  
GGGACTCTAGAAATGCCAGATAATCCACTTTTGTGGTGACAGAAGAACTCGCAATAATAGTACCGTT  
TACTGAACAACAAGTGCACATTAAGCACTGTGTATGCTTTAGGTATGTTATTTGATCCTCACCAAAT  
GCCTAGGTATTATCTCTTTTTCTTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTATTT  
TCTTTCTTTTAAACAAAGAAAGAACTGAGGGGGCTGGGTGTGGTGGCTCAGGTGTGTAGTCCCAGCAT  
TTGGGAGGCTGAGGTTGGAGGATCACTTAAGGTCAAGAAATTTGAGTTACAATGAGCTATGCTAGCACC  
CTGCACTCCAGCCTGGGTGACAGGTGAGACTCTGTCTCTAAAAAATAAATAAATTTACATCTGTTCAAAA  
GATAAATGACCTTTTAAACAAACAACATGTAGTATAAAGTTTATGACATACAATCAAAAAATAAATAA  
TAAAAAAGACCAATGTGACCTGATTTTATAGAACACTCTTAACAATAGCAGAATACACATTTTAA  
AAGTACTGTAGAACATTTATCAAAATAGGCCATACATTTTCTCAATAAATTTAAATTTATTTCTGTC  
ATAAATATACCTTTCTGGCCACAATATAAATAAATAGAAATCAATAAAAGGATATCTAGAAAATCTCC  
AAATGTTTGGAAATAAACTTCTATATCACACATTAGTTTCAAAAAAGAAATTTGAAAGTGTGTTGAA  
CTGCTGAAAAATTAACACAAGATAAATAAATTTGTGAGATACAATAAATAGTGTAGAGGAGTCTT  
GTAGCACTGTAGAACATTTATAGAAAATAGGGCCCGCGCGGTGCTCATGCCTATAATCTAGCACTT  
TGGGAGGCGGAGGAGGTGATGGCTTGTAGCTCAGGAGTTCAAGACCAACCTGGGCAACATGGTGAGACCG  
CCTCTCTACAAAAATACAAAATAGCTGGGAGGTTGTCATGCACTTGTGGTCTCCGCTCTCAGGAG  
GCTGAGGTGGGAGGTTGGCTTGTAGCCTGGGAGGTTGAGGCTGCACTGAGGCATGTTTATGCCACTGCACT

FIGURE 1, sheet 16 of 66

FIGURE 1, sheet 17 of 66

CTGGGCGCGGTGGCTCATGCGCTGTAATCCCAGCAATTTGGGAGGCCATGGCAGGAGGATTACCTGAGGTC  
GGGAGTTGGAGACCAGCCTGGCCAACATAGTGAAACCCCATTTCTACTAAAAATACAAAAATTAGCTGG  
GCGTGGTGGCAGGTGCGTGTGGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCCAGGA  
GGCGGAGGTTGCAGTGAGCCGAGATTGTGCCACTGCCTCCAGCCTGGGCGACAACAGTGAAACTCCATC  
TCAAAAAACAAAAACAATAACAACAACAGTAGGCTCTCTTGAGCCAGCCTGAGCAGGCTCTTGCAATG  
CTGCTGAAGCTTGTGCGGCTCTAGTTACTTTTCTGTAAAGTGGGGATGATAAATCTGCTCATTATGTAG  
ATTCTATTACATAGAGGACACATAAGTTCTTTGAATGCTTAAAGCAATGTTTCTTAACTTCTTTGGTCA  
TGAAATCACCCAGTGGCTTGTGTAATAATAACATTCCCAGGACCTGCCCTAGAGCACCTGGGTTAGAACA  
TTTTGGGGGAGGGGCTGGGAATCTGTATTTTAAATAAGCAACCCAGGTGAGCCGGGCGCGGTGCCTCA  
CACCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGATCAAGAGATTGAGACCATCCT  
GGCTAACACGGTGAAATTCATCTCTACTAAAAATACAAAAGAATTAGCCGGGCATGTTGGCAGGAGCCT  
GTAGTCCCAGCTATTTGGGAGGCCGAGGCAGGAGAAATGGCATGAACCCGGGAGACAGAGCTTGCACTGAG  
CCGAGATTGCGCCACTGCCTCCAGCCTGGGCGACAGAGCGAGACTGTCTCAAAAAATAAATAAATAAAT  
AAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA  
CCTGTGAAATGGGAGAAACACTGCTGCAATTAATCTTATAATGGGTCAGGTGTGAGGGTCTTTCTCT  
AACTTCCAAATTTGGGCTGCTTGAAGAGATGTGTGCAGAGTTCCACAACACACTCCAGGCAGGCATTAA  
TCCGTTCACTGTCTTCTACCTCAGAGCCCAAACCTCCCAAAGAGGAAAACCTGCTCCTTGCCATCTC  
TTAGGCCAAGGCTTCTGTACACTGGGAAGTCTTCAATCTGAGGATCTCTGGGTGTGTTTCAAGCTACT  
ATTTATTGAGAATTTACAAAGTGTGAGGCAGGTTACAGCAATTTGTCATTTCTATGAAATAGCTTCTTGT  
GCTATTCCCATTTTACAGAGAAAAATCAAGAAAGTTGGGAAATGTGCAAGGGCACACAACATGGAATG  
TTTGTGCTGAAAACCCACCTAGGCCAAGCCTTGAAGTCCAAGCCTGGGTCCATCCCTGCACTGGGC  
AATTTCTGATCTATGTGCGCTAGTTTCTTGTGTTCTCTGTTCTCTCCATAGAAATCCTGGGCTCTCTCT  
CCCAGCCACAAGGTTAGGTTGAAAAACAGAGCAGATGGAGGTAGTTTGTAGCCTACAGGTGCCCTGAATG  
AAGCTTCCACATGCTTAAAGTGAAGAACGAGGACTCCAAGGGAAGGATTCAAGGCTGGGCCCATGCAAC  
CTGTGTAATTCAGAAGAGACCCAGAGGAGATCAGCGCCCTCTAATTAGCCCTGGTAAGGAGCTCTGGGA  
GTTACTGTAATCTCTCAGAAGAACCCAAACATGCGGGAACGTGACTTCTTACCTTCTGAAAGTCCACAA  
AATCTCTGATTTGCCACCATTAATTTGTCACTTATCATTGCAACAGGCATTGTAGGTTGTCTTATGCATT  
TGTCTTCTCCCTCAGCTAGTATATAAGTCTTAGGGAGACCAGCAGTTACAGAGAGAATGGGCTTTGGTG  
TGAAACAGATCTGGTTGAACCTCTGCTACTTACTAGCTGTGGGCAAGTTCTTAAATCTCTGAGTC  
TTAATCTTCTCATCTGTAAGTGGAGACATAAGGAGTACCACCTCATTGGATTGTTTAAAGGATAAAT  
TAAATAGTGCAGGCAAGGATTACAAGCAACTGCTGAATGAATGGTAGTTATAGCCTCCTCCTCATCAT  
CTGTGAGCAAAACCTCATATTTCTTGTGCTCAGGTAGACATTAAGGATTGCAAGCATTAAGGGA  
GCATTGTCAAAAGAGATAAATGCATGAGGGCAAGATGCAGTCTCAAGAAGAGTGTGTTATGAAAGAA  
AAATGTAATGCTGAGTGTGAGAAAAAATTTTTTTTTTAAAGATGAGGTATCTATACCCAGGCTGAAG  
TGCAGTGGTGTGATCTTAGCTCACTGAAGCCTCAACCTCCCAGGCTCAAGTGATCCTCCAGCCTCAGCCT  
CCCAGTGTAGCCCTCCGTTGAAAGGCTGTGAGATAGTAGCAGTGCATATGTCAGATGTTGACAGCCT  
CAGTGTAGGAACACAGAACTGAATCTTGTCAAGGAGGCAGGTGTGCATCTGTATGGAAGTCAGATGA  
CCTGTGTTCTATGAGTGCATACTGGAAGAACCCCTCAAGTTTCTTGTGAGCAAAATGGTGATAAAT  
CAACATTGTAGGTTGGTGTGAACATGCAGCATGATGTGGCCATGCAAGTCTTGTGTTAACTAGAAGCCA  
GTGTGAGCAGGACAGCAGCTCTCTAGTAAGCTGTGGCTGGTGGCGTGGTAGAATACGTGGAGCAGGC  
TGAGGAAGCACTTGACTTGACTATGAGCAGAACCATTAAGAAGCTAGTTAGCTAACTGCCTGGACAGTA  
GAAAAATAATATGTGAGGATGTAAAGGAAGAGAAACAATGTGAGGGGAGAGGAGAAATGCAGAGATCCTG  
GCCCCGGAACAGCATTTGGTGATCCTTAAGTAGCTGCATGAACACTTGGGAGAGTTCAATTTCTGTTTA  
TAATTCACGACAAAGGAGGAGGCTCTCTAGTAAGCTGTGGCTGGTGGCGTGGTAGAATACGTGGAGCAGC  
GATCAACCGGTGACATATGTGAAGAAGCACGCTCTGTGCACAAAAAATCAAGTCTGTATTTTATAAAA  
GCCATTTCTGGGCTGGGCGCGGTGGCTGACGCTGTAAATCCCAGCACTTTGGGAGGCGGAGGCGGGTGA  
TCAGGAGGCCAGGAGATCGAGACCATCCTGGCTACCAGGTGAAACCTGTCTCTACTAAAAAATACAA  
AAAAATTAGCCGTTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT  
GCCACTGCCTCTAGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAAAAAAAAAAAAAGCTATTTCT  
GTAATGAGCATCACTGAGAGTTAGTTGCTATGGGTCTAAAGGACAATATGAGGCAGTTATAGTAACCTT  
CCATGATATGAACAAAGAAATTGAAATGTAGATACATTTACAAGAAGATGTAGAAAAAATTTAGTCA  
AAATTTTGAATATTTTGAATATTAATACTATGAAATCAGACAGTCTTATCTATGGTCTCAAGCCAT  
GTCTGTCTGTACCTTTTTTTTTTTTATCTCATTTTCAAGGAATATTACACTGGCTGACTTATTAATATCTT  
CTGAGCCAGAAATGTAAGGAAGCTGCATTTTCAAGATGCAATTTGAGTCATTTGTGAAATTGCATATTA  
CAATTTGCCGCCATTTCAACAGTCTTATACTTTTTTTTTTTTTTCTTAACTGGGTGTTTCACTTCA  
TGCCAATGACCTTCAAGGCTAGTTTCTCTAGCTCAAGAGAATTGCTGCAGAGTTGGAAGTAAAGGAC  
AAAAATGTGTATGCTTCATGTTGATTCAAATGCATAGAAATAGAACTTAAGGTATGCAAGGGATT  
TGTGTGAATTTAAGTACCTTTGAGGGCAGTGGACAGGACAAAAGTTATTTTACCTGTTGTTTAC  
AAATAGCAAAGATCAAGACTGAAACACATGAGTGTGATTAGAAAGAGTTGGCTGCAGGTGCTGCTGTCT  
CAGGTGGTTCATTTAACTGCAGGTGAGGCAACCTTGTCTCATGGTCTGGTGGCCAGGTATCAGGTTG  
GGTCTGTCTGTGCTTATGTCTTGTACCTCTGAGGGCCCCAGTCCAACGCAGATCAATAAAGAATA  
AGTTACATAAATATGCTCATAGGTGGTATTCTAGACAAGAAATTGACAACATTTTATCAACAGTATC  
TGGGCTCTACAGGACAGACATGCCCTCATTTATGCAACAAATAAGAACAGCATCTCATGACAGTGGAGAA  
AACATGGGATGTGCAGGTAGGTAGGTAAAGTTGGGTGGAACCTTCAACCTACCAATGCACATGGGTGA  
CTTTATAAATAAATGTTAGCTCTCTGAGCCTCAGTTTTCCCATCTGTAAATAGACAGTCCCAGGGAAT  
TTTCAAGGATTAAATGAAATAAAGTGAATCAACCTATGCAAGCCTGCTACTGTGGTGTCCAGGCTAGA  
AAAAATGCTCAATAAATATTAGGTTGTGTTTTATTTCTACAAAAGATGTGATCCTAAAGAGCTCTATCCAA

FIGURE 1, sheet 18 of 66



ATTCAAGTTTCAAATGTCAAATCACATTTTGTGAACTTTATGTTCAGTTGAGATGATCTCTGACATATTA  
 ATTAGTAATCCTATCTTTTTTCATTCATCACCACCAAAAAAGGTGTTATTGCACGTTCAATTAATCTTTT  
 CCCTTTATTAATCCATTAAGTGTAGGGTTTATCTCTCAGATTCTCTTAAACAGACCAATTTATACCCA  
 CATATAATAAATAAGCTTGTTCCTATAACACTCTGGAGCAGATAACTATCCCAGAACCCAAATCCTCCTA  
 CTTGGCTTCAAGCTCAGAGAATAAAGCAACAATCCAAGGCACCCCTTTGGCATGACACCCTTCTAGACAT  
 CTGTAGCATTCCTCCTTTCCCTCCACTTTTCTATTAGCTTTTGCTTTCTTGCCCTTTTACAGGGTTTTGT  
 TTTGCCCTCTGGTAGTTTCTTTCTACGGAATTTCTCCCTCTGATCTTTCCAAGTCAAAGGCTTCAGCA  
 AACATTTGTTGAACGCGTGGATTGTGCTAGGTGGGTGTTATGGACCATGGAGATGCTAGAGATGAAGA  
 CATGCGCTGTCCAATCGCAGCGCAGGTTGTGTTGACAGGTAAGATGAGGGCTGTAGGGGAGCCAATGTGC  
 ACGTTCCTACTGGGCTAATGTGCTCTTCACCTTATTTAGGCTCTTGCGTTTGGGATGTGTAAGACTTTGTCT  
 AGACAGAGAAGGGGTGGGTGAGAAGATGAGGAAGGTGCACCTTTTATGGAGAGGCTTTCTTCTCTCTTC  
 ACAGCAAAACCATACCTGTACTACATTGACTTCTTGTCTTCCAGGTGACATCTAGCTCATGCTGCAAG  
 CTCATCTTGTTAATCATAAATGCTAGTAAGTTAATATTACCATCATATATAACATGACTTAATTTTAAAC  
 AATTCAATGCTTTATCCCCAAAGATGACTTAATGGTGACAAATTTCAATCCCCATTGTAGGATATTTTGG  
 AGACAGGCAGTCCCTTCAATGTCTATATGTTGGTGCTTCTTAGGCAGGTGAGGGGTGAGGTGGAATGAG  
 TCTGGGACGCTTCTCCTTATATAGCAGGCATCGTTTCTCAATACCAGGCTTCAGGGGGCTTTTGGTCTA  
 GCCATTGGTATGAAGTGCCTCAAGAATAATCCCTTCATCATTGTGGTCACAATTCAGGTAGAATTGGAAT  
 AATCACCCTCTCCACTCTGCATTAAACAGGCAGGAAAGTTTCCATCTCTGGGTACCATTTGTCTTTCTTGATG  
 GACAGGGTGAGTCAGAGGAACTTACTCACTCCCATTCATTTTCTGCTTATTTATTTCTGTCAGTGAGGT  
 TTTCTTGTATAATAACAGCTTCTGTGGGTGTTTGTAGCTGCTCTGAAAAGAGAACATGCTGTTCTGTGT  
 GTAGAATGCCTTCTGAAGGAAGCATCACAGTGAACACAGAGCAGAAGCTTGGCACACAGGTGGCAGAAGT  
 TTTGTCTGCAGTGTTCTGCATAGAGCAGAGAGTCAAGCCATTTTCATTCTGATTGATTGGAGGCATGGTAT  
 GGAGGTAATGGGTCTTGGCTCTCTCCTGGATTCAAGTCTTCTTAGCCACTGATAGGTGATGTGACC  
 ATGCTGTGCAGGTGTTTAACTCTCTGAGTACCTTCTTCTCAAGTATAAAATGGGGGTAATAGAATTTGCC  
 TTATAGGCTTGGCTATAAAATAAGAATTATTGAGAGAAAGCGGGGCATAAATGTCCAATAAGCGGTAGCT  
 GTCTATGAAGCCACTGTTGTTACTGGGTTCCTTCTCACTAGGTGGCTTCAGGTAGCTGACAGAGCTCT  
 GTGAGCTCAATTTCTCACTGGAAAAGTGGAGTCAATATCTCACTGAGCTGGTGTGAGGATTAATAGT  
 TGAGAGTCCCTCAGGTGACAGAGCAGGAGGCTGAGATTGGAATTTGATAGATGATTTTCTTCCACCTC  
 ACCTATCTTTTTCTGCCTGTTGGCTTATGGTTGAAATTCCTTCATGACGGTTTCCATTTCCAGAGATATC  
 TTGTTAAACAAGTATATACCACCAAAATGAAGCTGATTTTTTTTTTTTTTTTTTTTGGAGACAGAGTCTC  
 GCTCTGTCGCCCAGGCTGGAATGCAGTGGCGCGATCTTGGCTCACTGCAACCTCCGCTCCCATGTTCAA  
 GCGATTCTCTCTCAGCTCAGCTCTCTGAGTAGCTGGGATTACTGGCATGTGCCACCACGCTCCAGCCAAATTT  
 TGTATTTTTAGTAGAGACGAGGTTTACCATGTTGGTCAAGCTGGTCTCAAACCTCTGACCTCGTGATCC  
 ACCTGCCTCGGCTCCCCAAAGTGTGAGATTATAGGTGTGAGCCACCATGCCTGGCCATGAAGCTGATTT  
 TTTAAACCATCATTTAAACATTTTCTCCATAAGGTGGCAAGGAGGAAGAGCATATGGGGACTGGGTACTT  
 TGAGAGACCCAGGTGACAGAGCAGGAGGCTGAGATTGGCATGTTGTCTGCTGCAGTTATTTGCCAGGC  
 ACACACTCTTCCCGTCCAACTAACTTCTCTGCCTCAAGGACAGGGAGACTCTGCCTTTCAACCTGAGAG  
 AAACCAGGACTCTCAGCTTTAATGAAAATTTGGACTTAGGGTGGGGCAGTGGAGACTTTTTCACAGCTATTG  
 TTTAGCTGATGAAGCAGATGCTTCTCCATCTTTGGAGCCTGTCTTACCTGTGGACCTCATCTTTAT  
 CAACCTCAGGCTTCTGCTCTCTCTTATTTGGCTAAACACAAACAGCTGAGGCTGGTACTGTAAAC  
 TTTCCCTCCAAATGCCCCCTCGTCTTCTCTTATTAGAGATCTGGATCACAACCTCATAAACCATATGTC  
 CCTTATGCCACCTGAGTAGATGTTTGTGATTAAATTAGGCACAGATGTGACACTGGGGGGTTCTCACAA  
 TGGCCTGTGGGTACATGCTACTTTCTTTTCTTATTTTTCATCAGCAACAGCTGCCTTAAAGCCAGTTAAGA  
 ATACTGCTCTCTTGAACCTTGCAGGGCGAAGAGCAGCGCGCAGCGCTGGGCCGGGGAGGGACACCCGA  
 GCTGCGACGGGCTCTGGGGCTGCGGGGCGAGGGCTTCCGCGGAGAGAGGGGTGGGCAGGTGCCTCCAGC  
 GGAGAAGGGCGCGTGGCGGAGGCACAGGTCTCCCGGTGCCACTTCAAGTGAGTTCGAGGAAGTACCT  
 GGGATCTTTGATCTAACGCGAAAGGCCTTCCAGTGACCTCTTGAGAGCTGAGAACCCTCTCCCTCCACC  
 CTAGTCTCAGGCTTTTGGCCTTCCAGGCGCCAGGTACGTTTGTCTGCTGGGGATTGACAAACCCAAAG  
 CCTCTCTGGTTTACCAGTGGCTCCTTAGAATCAGACATCTGTTCTGAATGACACTTATGTGAGTCAGGG  
 GCTGAGGACGTGATCCTCGAAGTGTGGTCCCCAGACTGGCTGTATCAGTGTGCGCATCCCCAGGACCTG  
 GTTGAAGATGCATATTCTCAGGCCCTACTCCAGACCTCTTAAATCTGAGACTGGGGCTGCGGGGAGCGCC  
 ATCTGTGCGCCACTATCTTGTGGTGGACAGGAGTCTGTTTCCAGGGTGTCTCCACTTAGAGGTCAACG  
 GCGGCGTGGGGCTTCTGAGACCGTGGGGCTCCCTGGCTCGGTACGTTGGGCTCAGGCACTACTCCCT  
 CTACCCTCTCTCGGTCTTTAAAGGAAGAAGGGGCTTATCGTTAAGTCTGCTTGTGATCTTTTCAAGTTT  
 TCCAGCTGCTGGCTTTTGGACACCCACTCCCCCGCAGGAGGAGTGAAGCGCGGAGGCTGCGAGAA  
 ATAACTGCTCTTGAACCTTGCAGGGCGAAGAGCAGCGCGCAGCGCTGGGCCGGGGAGGGACACCCGA  
 GCTGCGACGGGCTCTGGGGCTGCGGGGCGAGGGCTGGCGCCGAGGCTGAGCTGCAGGAGGTGCGCTCGC  
 TTTCTCTCAACAGGTGGCGGCGGGGCGCGCGCGGAGACCCCTTAAATGCGGGAAAGCACGTGTCCGC  
 ATTTTAGAGAAGGCAAGGCCGTGTGTTTATCTGCAAGGTAAGCGCCCTTCTGCTGAGGTGTGGTTTAA  
 TTTGTCTCATTTTGTGAAATCTGCGGTGAGAACAGTCTGTTTGAAGAATAAAAGACCAAAAC  
 GATCACCAAAACCACTGCTCTGAAAGTACTGGAAAGTTGGAATGCATGCTTTGATTAAATGTCTTC  
 ATTCAAGACACTGGCAAGTTAACTTATTTAGTTTGTGCGGTGAGCTCTGGGTGATTGTGCTAATATGAA  
 TAACTGAAAAACATTTTATTTCCCTATGGTTTCTCTGATGGACTTCCCACTATGGGTGAAATGACAA  
 TGGAGTTGAATTAACCTTCTGATTGAACCTTGAAGGCTTGGGAAGATGTACAGTCTCAGGCAAGATGATA  
 GGGGTTTTAAATGTATTAATTGGCATTCCTTAGCCATGTGACGAAGCTGCGTCTCTCTTCTTGGGCA  
 GACCAAGCTAAGCTCTAAGTGGTCTCCTTATTTGCTGAAGAGGAGTCAACAACCTGCCCTCTAACACCC  
 TCGCTGTTATTCTTATTGGAAGGACAATATTAAGTCAAGTGAATGTCATTTTGTGAAAAAATTTGAGT  
 GGACTTCTATTTAGGAAGATAAGGTTGATTTAATTTTACTCGCTGTTTAAAAAGCAGGATTGTGTTTGG  
 TGTGGTAGGCAACATTTTGGAGGACAGACTTTGCCTTATTTTGTATATTTCTAGTATTTACATGGGCAT  
 TCCATTAGAAAGTTTACTTTTGTCTAAGTTTTCGTAACCTCGTGTCTAGTGGGGGAAACATGTTTGT  
 ATTTAAAAAGTGAACATGTGAAGGAAAGGCTTTTCTGAGAGTGTGTAACAAATGTAACTGACTAT

FIGURE 1, sheet 19 of 66

GAAAAGAACATGATTAACATCTTTGACTCCTATTTTTCTGAAGAAAATGTATTTTGATATGAGTTCTAG  
 AAGAAGGAACTATAAGGATCTGTTTCATCAACAGGCATTAGAGTATACACCGTAGGATTGCATTTTACGT  
 TCAAGCATTTTTTGTAGTGAATTTCTGAACATTTCTTATTTTAAAGCCATCAGATGCTTGTTAACACTT  
 AAGTCTTGCTCAAGACATAGAAGTTTCTGAAATCAATTAACATGTTTAGGACACATTTTCGTAGTGTCTG  
 AGGGATGTGAATAAATCTAATCACAGTTTACATTTCTTAATGTATTTATAATTCAGAAAAGGTAGAATTT  
 AGTAGTAAATTCAACTCATAACCATATAAATTAACATTTAATAGATATTGATATGTTCACTTTTAAAGAATA  
 AGAAGGAAATTTTCTATAAGTGTATGTTGAACACATAAATTCAAAATTCATGTGATAATTTTAGGTGA  
 TGCCTTTGAGTCGTTTTTATAGAATATAAATATGGATAAAATATAAAATACTGAAGGCTGAACCTCAAAGTGT  
 TTAATGATAAGTTTTTGATAATACATCTAGAAACCTTGAGAATTGTATGCTTGAACGTTAGATTTTCATAA  
 TTCAGTGTCTAGCACATTTGTTTTATATGCAATAGCACTTTAAAAAATTAGGCTACAGCAGTATAATTTA  
 CATACAGTAAAATTTAGCCTCTGTAATGTACCTCTATGAATTTCTGACAGATGCACAGTCATGTAACCAAG  
 CACCGCACACATGACACAGAACAGTTCCATTACCCAAAAGTCCCTTTGTACCTCTACCTACCCCACTG  
 CCCCTGAAAATCACTGATCAAACTACATAATGATTATGTGTTTTGCTCTTTAGTACGTTTTTACTTAG  
 ACATATTTTCCTTTACTTCTTTTGAAAGAAAACCTGTTTTTCCTTTTTATAGGATGAGTCAGTTTGTG  
 CTATTTTAAATCTAGTACCTTGGGATAAATCAAGGCAAAGACAATGCTATTTGCAAATGGGAACTTTGA  
 GACTTTGGATTAAGTTTAAATTCATATAGGCTAATAGATTTAGTTCTTAGCAGATTTAGATTTCTATTT  
 GGTTTAAGCCTTTGGTTATGGCATATATCATTAGTTATCCTGAATTGAAATACAAGGCCATTAAAGTTA  
 TTTATATCATATTAATAGAATGCATCATTCTTTTATAATCTTTGAATTTTAAAACTTCTTTATTAATAA  
 AAACTACTTTTTCATTATACCTGAGATTAAGAAAGCTACCTGAAATTCATATTATCAAATAGTGAGAAG  
 CAAAACAGGATGACAAATGACAAATGACAAATGACAAATGACAAATGACAAATGACAAATGACAAATGACAA  
 AATATTTATCTTCATAGGGGCTTAGGTCTGTGTCCAACCTATTTGTAGATGTCAGGATTTTAAATTTCT  
 GTGCTCATGTCTTGAAGCTAGATTTTCTGTCAGGGTGGAGATGATAAACCTTTGTAAACTAATATTTT  
 TCACTGTTTAAACACAGTATTCAATTCAGTATACAGTTAGGAGCCTGTTATTGGTAGGTACTGCTAACATA  
 TCATGTGATAATTTTCTCAAGGCCAGACTGCAGCATTGTTGTAGTAAATTTGTGTGTTCTACTGTCA  
 GTAACCTTACCTTGCATACCCAGTTACAGTGGTAGTAACTAGGATATGCAGAGTGGCAAGTTTATGAGGAG  
 CTAGCAAATGGATAGTTGGCCTTCTAGCTGGAATTTATGACAGGTCTTGAATAAGAGGGCTTTAGTG  
 GAGAATCTTTGTGTGGGTGACTTGTAGAGAGGGCAGGAGAGTTAGGGTGACCTAGAAAGATAGATTGCTG  
 GACTTGTATATGTTTCTCAAGGCCAGACTGCAGCATTGTTGTAGTAAATTTGTGTGTTCTACTGTCA  
 AACCAGGCTTGAAGGGGAGTTGAGTGCATTACGCTAATCTTGGATTGGCTGTGTCATCTTGAATCC  
 CTTCACTCGGAATTTCTCTGACCTGTCCCAATGAATATTTGAATTTGGTCCAGTTCTACAGAGCAT  
 GGTCTGTGGCTGTTGTTGGTGTAGGGAAGAGCAGAACTTGTCTGTGAGAGAGAAGACACTTGAGAAGA  
 CTGATGAACCTCTCTCCCAACCTGCTTTCGAGGCTTGGTCTCTACCTATTCAAACCTTGAACCTT  
 TTCTATCCAATAAATAAGCGCCAATTGGTTACTAGGAGAATTAGCTTTTCTCATTTTGAAGGAAAC  
 AGGGTTTCTTATGTACATGTTCTTAAGAATTACATGCAAAATCAGTTATTAATGATGAGTTCTCTGGTGA  
 TTTTGGAGTGTTTTATCTTCTAATATTAATTAATTTAGGGCCTTAATATTTTGTTTTGAAGAATATA  
 TTTAAAGGCTTGGTGTGGTGGCTCACGCTGTAATCTCAGCATTTTGGGAGGCTAGGTGGCTGGATC  
 ACTTGAAGGCGAGGAGTTCAAGACCAGCCTGGCCAAATAATGAACCTTGTCTCTGTTAAGAATACAAAA  
 ATTAGCTGGCCATGGTGGCTCAAGCCTGTAGTCCAGCTACTCAGGAGGCTGAGGCATGAGAATTGCTTG  
 AACCTGGGAGGCGGAGTTTACAGTGAGCCGCGATCATGCCACTGCATTCCAGCCTGGGCAACAAAGCAAG  
 ACTCTATCTCTAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATA  
 GGTGGTTTATGCTGTGATCACAGCATTGTTGGGAGGCGGAGGTGGGAGGATTGCTTGAAGCAAGGAGTTC  
 AAGATCAATCTGGGCAACACAGTGAGACCTATCTCTACAAAAATTTAAAAATCAGCTGGGCATGATGCT  
 GCATGCCCTTAGTCCAGCTACTTGGGGGGCTGAGTTTGGAGGATCCCTTGAAGCCAGGAGATCAAGGCT  
 CAGATGACCTGATGATCTTACCTTACCTTACCTTACCTTACCTTACCTTACCTTACCTTACCTTACCTT  
 AAAAAAGCTAATAATTGTCAAACAGCTACTTATGCACATCAAGGATGCTTGTGCTTGAAGAACTTTTTT  
 AAATCTTTTCCATGAAATTCCTTCTAGTTGCTGCTTGTGAGCGTGAATTTTTTACTTCTGCAGGACACA  
 CAAATGTGGAGCATTGAACTGAATGCTTGGGAAAGTGTGATGGGCAGGTGGAAGAAGAATAGGGATGAG  
 GACTTATCTTATCTTATCTTATCTTATCTTATCTTATCTTATCTTATCTTATCTTATCTTATCTTATCT  
 AATATGTGGCATTGTTGCCACACACAGTGTTGGCAGGCTACCAGCAGCCAGCTATCTGGACTAGGGG  
 TGATGGATTCTGTGGACAGAAGTCAAAAGTAAATTTAGGAGGCAAAATCTTCAGGGTGGCCATAAAG  
 ACATTGTAACCTGTCTGGAATTTCAACCAACACTAAATGTGTATCCAGTGATATACCAATAGACTGGCT  
 TCATCTTCTTGGATGTGTAATAATACCTTACAGAATGCTTTCTTTTTTTTTTTTTTTTTTTTTTTTTT  
 TTTTTTTTGAATGAAGTTTTGCTCTTGTGTTGCCCAGGCTGGAGTGTAATGGCACAATCTCAGCTCACTGC  
 AACCTCCACCTCCAGGTTCAAGCGATTGTCTGCTCATCTCCCGAGTAGCTGGGATTACAGGCATGT  
 GCCACCATGCCCGGCTAATTTGTATTTTGTAGTAGAGACGGGGTTCTCCATGTTGGTTAGGCTGGTCTC  
 AAACCTCCGACCTCAGGTGATCTGCCACCTTGGCCTCCCAAAGTGCTGGGGTTACAGGCGTGAGCCACT  
 GCGCCCCGCTCAGAATCTTTACAGACATCATCTCATTTCACCTCAGAGCACCGTGAAAAGGTACAG  
 CACCAAAATAGGTACCTGATTCTACTGAAGAAGATGTGGCAGCTCAGGGAGTTTGTGGATTGTCTAAGAT  
 TGCTTGGCTTTCAGGCAGAGCTGGGGCTAGAATGAATGTTCTGCTCTATCCATTGATAGAATATACATAA  
 GAACAGGCTTGTGTTGGTGGCTGACCTTTTTTTTTTTTTTTTTTTTTTGAAGACAGAGTTTGTCTTTGTCACCT  
 AGGTTGGAGTGAGTGCGGTGATCTCGGCTCACCGCAACCTCCACCTCCTGGGTTCAAGCGATTCTCTCTG  
 CCTCAGCTTCTGAGTAGCTGGGTTACAGGCAAGCGCTGCCACACCCGGCTAATTTTGTATTTTGTAGTA  
 GAGACTGGGTTTCTCATGTTGGCCAGGCTGGTCCCAACTCCTGATTTCAAGTGATCTGCCACCTTGG  
 CCTCAGGCTTGGGATTACAGGCATGAGCCACCCGCGCCGGGTGAGCTGATTCTTATTAAGTATGAT  
 TTACAGGTGCTTTGATAAAACCAGTCTAGTCTTGGCTGGCACGGTGGCTCATGCTGTAATCCAGCAC  
 TTTGGGAGCCCAAGGCGGGGTCACGAGGTCAAGAGATCAAGACCATCCTGGCTAACATGGTGAAACC  
 CCGTCTCTACTAAAAAATAGAAAAAATAGTGGGCATGGTGGCGGGCACCTGTAGTCCAGCTACTTGA  
 GAGGCTGAGGCAGGAGAATGGCTGAACCGGAGGTGGAGCTTGCAAGTGAAGCAAGATTGCACCACTGCA  
 CTCCAGCCTGGGCAACAGAGCAAGACTCCATCTCAAAAAAAAAAAAAAAAAAGTGTAGTCTTTTGGAGT  
 GTTTTTCTGCCATTTCTAGGGCCAACTTTTCTGTTCATGAATCATTGTCAAATTTGGGAATTTTAA  
 TACTACTTTTTTCTTTTAAATCAAAGCCATAGTATGTTTCCAGCCAGTACATTAGAACACCATGACCG

ATCCCATGTGTACAAAAAGCTTTCTGGCTGAATTGAGATGTGACCTGAGAGGGCCAAATACAGGGGTGTG  
TGCTGGGAGAGAGAGAGAGGTCTCTGGACAGAAAAACAGCCTGTTACCACCCAGGATATGGACCAACT  
ATTTTAGTGTATGTGACTAAAGAAAAATGACATGCAATAAATGAATAATTCTTAGAATCAGGATGTCT  
GGGTACTGGTTCTTTGGTTGGCCAGGTGAAATTCATGCCAGGCCCAACAATTAACCTTTTAGAGACAA  
TTTTTCTGTGTGTACAGAACATTGTACTGAGGCCATGTTGAACATTCAATCGATGTGTGGGAAAAC  
TCTGCCCTACAAATGTTAAAGAAATTAATCTTTTGGGGAGTCTTTCCCTTTGACCAGTTTATATCTCTGTT  
TTAGAGGAGGGCTTCTCAACCAGAATGGGTTTGTGACTTATTTTACAGACCTCTGGTAGAAAGGAGGT  
CTTTTTTGTCTAGCTGTTCTCCTGTCTCAGAGACTATTACAATGGTGTAAAGTTCATCATTTCTCCCT  
TATTATGGCTCTGCTTAGGAAGAAAACTCTTGCATTGGCTACCAAGTACCTAACTATTCAAGATGCCA  
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AGCCTTTTAATGACTCTCCAGAAGTCAGTTCTCTAATTTAATTATCATCCTTCTGGGGATATGTGGAAA  
TTCTACAGAAGTTGATGGTGATATGTTGAGATGTGAGATCTGATTTTCTAAGCAAGTTGCCATGCCA  
CTGATTGATTGGCTAGGTGTATCTGGCATTGTGCTATTGTTGGTGGGGTCTGATAGTTGGTTTACCAC  
TGCTGGGTACCCAGAGTCATCAGATCCATAGAGACAGAAATGTAGGCTGGTGGTGGCAGGGGGTGGGGGA  
AGGGAGGAGTGGGGAATTTGTTTAAACAGAGAGTTTAGTTTTCAGAGATGAAATGAGTTCTAGAGATTGG  
TTGACAAATAATGAAATATCCTTAAACACTACTGAACTTTATACTAGAAATGGCTAAGATGGTAAGTTT  
TATGTTACATGTATTTTAAACAAATTAATAAAGAAAAAACAACCTTCAGGCCAGGCACGGTGAC  
TCACACCTGTAATCCAGCACTTTGGGAGGCTAAGGCGGGCAGATCACTTGAGGTGAGGAGTTCAAGACC  
AGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAATTAGCCTGGCCTAATTTGTGCATG  
CTTCAATAATCCAGCTAATTTGTAGGCTGAGGCGGGGAATCGCCTCAAAACCTGGAGGTGGAGGTTGCA  
TGAGCCGAGATCACACCACTGCCTCTCCAGCCTGGGTGACAGAGTGAGATTTCATTTCAAAACAAAAA  
CCACTTTAGAACTGCTAGTTTGGCAATAGTTATCACTATATGTTTTATCTGCATATTTCTGTAAAG  
AATAAGGAATTTGTTATGTTGATCAGGAATCTAAGTAATTAATAACAAAAATCTGGCTGGTGGCTCTCG  
CTTGCAATCTCCAGCTTTGGGAGGCTAAGGCGGGTGGATCATTTGAGGTGCGAAGTTCAAGACCACTT  
GGTCAACATGGTGAAACCCCATCTCTACTAAAAGTACAAAAATTAGCTGGGCATGGTGGTAGGCACCTG  
TAATCCAGCTACTAGGAGGCTGAGGACGAGAGCACTTGAAGTCAAGAGGCGGAGGTTGCAGTGAGC  
CAAGATTGTACCACTGCCTCCAGCCTGGGTGACACAGCGAACTCCATGTAAAAAATAAGAAATATA  
AAATCCCATACTATTATTAATACATATAGTATTAATAAATAAACCACCAACCAACCTTCCCTGATCC  
TATATCCTTCTCCAGCTACCATTTCT  
AAGTGGTACCCTTTGGTGTAGTTCTTATCATTTTACCTGGTCTGTCTCTCTCTCTCTCTCTCTCTCTCT  
GCTCCCTGAAGGCGGGGTGTATGTCCAGAACTCCTTGAAGTCCCTTTTCTCAGCATACTACCATGCCTA  
CTGCAGCACCCCATCTTTAATGTCTTCTGACTTGGTGAAATATTACATTTTGAACACATTTCTCTCACTT  
CCTTATGACAAATATTGATTGAGTTTCACTGCAAGGTGAGTAAGAAATGGTACTTGGCTTTCAAGGAGCTA  
AAAATCTGAATTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCTTTT  
CTGTACCTGGGCTGGAGTGCAGTGGCACGATCTCAGCTTAATGCAGCCTCCGCTCCAGATTCACTGTA  
TTCTCATGTCTTAGCTTCTCGAGTAGCTAGGCTACAGGCTACAGCACCAGCCTGGCTAAGTTTGTGA  
TTTTTAGTGAAGATGGTGTTCACCATCTTGGCCAGGCTGGCTCAAACTCTTGACCTCATGTGATCCAC  
CCACCTCGGCCTCCCAAGTGTGAGATTACAGGCACTTGAATTTACTTCTTACTCTCTCTATGCACCTCTA  
TCATTTGAAGAAGGGTTCAAGGTAGTTCTGATAAGCAGGATTAGGTTTGTATGTAAGTGATTAAAGGGG  
TGCTATGACGCAAAAAAGTGTGAAGGTAAACAAAGCAACCACTCACAATGAGTTTGCATGTTCTTGA  
ATGGACATAGCAGGTTTCTGTAAAGAAACAGCAGGAGATTCTGTGGAATGATGGGTTGAGGCAACATA  
GTGGCATCCCTTGAATGCTCGAAGAAATGTGACTTAGAGTTTGGTGGGAGCAGAGAGCTGGGTTTAAAG  
ACATGAATCTGACAACTCTATGGATCTGGAGGAGAAGCTAAGTGGGACGAGGAGCAGTAAGAAGCCTGT  
TACAGATGCATGATAAGAAGTATGAGAGCTGGCCGGGCACAGTGGCTCAGCCTGTAAATCCAGCACT  
TTGGGAGGCCGAGGCGGGCAATCACAAGGTGAGGATTTCAGACGAGCCTGGCCAACATGGTGAAACGC  
CGTCTCTACTAAAAATACAAAAAGTTAGCTGGGCGTGGTGGCGGGCGCTATAATCCAGCTACTCGGGA  
TGCTGAGGCAGAGAATCGCTTGAACCTGGAAGGTGAGGTTGCAGTGAGCCGAGATTGCGCCACTGCAC  
TCCAGCCTGGGTGACAGTGCAGTCTCCGTCTCAAAAAAAGGTAATGCGATATGAGAGCT  
TACTTCAAGATGGCAGCAAAAGACAGTGGAAAAAGGCATTGGGAAAAAAGCCAATGTGCCTTGATGAG  
TAAAGTTAAGTGAAGTCAAGGGGAGAAGTCAAAGGTAATGATGGGCTTTTCTATTAAACACAAATAGG  
AAATGAGTGGTTTGGGAAAGAAAGTGATGAATTACCCCTCAGATATTGTATTAATTGTCTATTACTGTG  
GCCGGGCATGTAGCTCATGCTGTAAATCCAGCACTTTGGGAGGCGGAAACAGGCAGATCACTTGAGGT  
CAGGAGTTGAGACACAGCCTGGCCAACACGGTGAAACCTGTCTCTACTAAAAATACAAAAATTAGTGTG  
GTGGTGTATGCCTGTAATCCAGCTACTCAGGAGGCTGAGACATGATAATTGCTTGAACCTGGGAGGCAG  
AGATTGCAGTGAGCTGATATGGCGCCATTGCACTCCAGCCTAGGCAACAAGAGTGAACTCCATCTCAAA  
AAAAAGATTTGCCTGTAATCAGCCAGCACCCCGCCTGTGTCTCACTTACATACAAAAATTCTGTTT  
TTTAGAGCATAAATTGAAGGGCACATTCAAACTGATACGTAGGCCAGGCATGGTGACTTATGCCTGTAA  
TCCAGCACTTTGGGAGACCAGGCAGGTGGATCACTCGAGATCAGGAGTTTGAGACCAGCCTGGCCAAC  
GTGGTGAAACCCCATCCCTACTAAAAATACAAAAATTAGCCAGTCACAGTGGTGCGCACCCATAGTCT  
CAGCTACTCGTGAGGCTGAGGCAGGAACTACATAGAACCTGGGAGGAGGAGTTGAGTGAGGCCAGAG  
TCATGCCACTGCCTCCAGCCTGGGTGACAGAGTGAGACCTTGTCTCAAAAAACAAAGACAAACCAAAAC  
AAACAAACTGAGAAGCAACAGATTGATAAGTGACACAGTTTCACTGGTCAGTCTCTTCACTTAATACC  
CATTTGTTTTTATTATTGGAGATTCAATATGTTTTCTTTCTTTTAAAAACTTTTTTCGGAATGGTAA  
TTTCTCTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGGAGACAGGCTCAGCTATACCCAGGCTGGAGCGC  
GGTGGCACAACTCTGCTCACTACAACCTCTGCCTCTGGGCTTGAGCAATCACACCTCAGCCTCTTGAG  
TAGCTGGGACAAAGGCACATGCCACCATTCCTGGCTAATTTTAGTAGAGACGGGTTTACCATGTTG  
CCGAGGCTGGTCTGAACCTCTGACCTCAAGTAATCTGCCACCTCAGCCTCCCAAGTATTGGGATTAC  
AGGCGTGAGCCACTACGCTTGGCCTCATAGCGTATTTTAAATATGGTTGAGACTAGCCTTGCTATTGAT  
CTTCTCTTAGCGTTTACTTGGTTATTCTTGCTTATTTTCCATAAGAACTTTCATTTTTATTTAATCCTG  
TGTTTTTGGTTTTAAAGACTATTTTATAATAAATTTTCGTGATTAACTCTTGCTGTAACTCTTGAT  
TAAACAAACAAGCAATGAAGAGATGAATGAAGCAGAAATGTGAGTTTCATGCCTCACATTCCTCACTCT

FIGURE 1, sheet 21 of 66

CTGAGGTTAATATTTTCATGTATATTTTCAGGATGTATTTGTAATCTCATACAAACGTATGTATTTTT  
 TAATGAAATATTTAAATTTTCATAGTTAACAGCTGTAGCTCTAACTTGGCAATATCTTCTGTGTTTCTT  
 TACAGCCATTATATCTTGCCACGAATCTTTGAGAACATTATAATGACCTTTGTGCCTCTTCTTGCAAGGT  
 GTTTTCTCAGTGTATTATCTCAAGACATGGATATAAAAAAATCACCATCTAGCCTTAATTCTCCTTCCCTCC  
 TAACTGCAGTCAATCCATCTTACCCCTGGAGCAGGCTCCATATACATACCTTCCCTCTATGTAGACA  
 GCCACCATGAATATCCAGCCATGACATTCTATAGCCCTGCTGTGTATGAATTACAGCATTTCCAGCAATGT  
 CACTAATTGGAAGGTGGGCTGGTCCGACAGCCACAAGCCCAATGTGTGTGGCCAAACCTGGGCAC  
 CTTTCTCCTTTAGTGGTCCATCGCCAGTTATCACATCTGTATGCGGAACCTCAAAAGAGTCCCTGGTGTG  
 AAGCAAGATCGTAGAACACACCTTACCTGTAAACAGGTAAGTCCAGTCTTCATTCTGAATTATAGTTGC  
 TAGCCATTTCTCAAATCACTTTATGGTTGAGTGAGAAGGAAATAATATGTTAGACAAGGTCTTTATTGTA  
 TTAATTACATAGTTTACTTACAGCACCCAAAAACAGGATGCCCTGTTCTATTCTGATATTTTAGTTCTC  
 ATTAAGAACTGGTATGTTGATACATCAGTGTGTGGGGAGAATTTGCTATCATGACTATTGTCTTTATACAG  
 TAAATACGAACCTAAGTCACTCCTTTTCTTTTTTTGAGACAGGGTCTCGCTCTGTCACTCAGACTGGAG  
 TATAATGGCAGGATTGGGGCTCACTGCAACCTTCACTCCTGGGTTCAAGCAATTCTCGTGCCTTAGTCT  
 CCCGAGTAGCTGGGATTACAGGCGCGTGCCACCACGCCAGCTCATTTTTTAAATTTTGTAGAGACAG  
 GGTTGGACATGTTGGCTAGGCTGGTCTTGAACCTCCTGACCTCAAATGATCCACCTGCCTTGGCCTCCCA  
 AAGTGTGGGATTACAGACGTGATGAACACTGTGCCTGGTCTGAACCTAAGTCACTCTTAATGGAGTTAT  
 TTGGATTGAAAAATGAATTTTACTTTACTTTTCAAGTCTTCTTATAGTGAACCCAAATTTA  
 ATGTTTCATGACAAATTTGTTCCAGGATAAAAGTAACCTGTGATAGTATTACAACCTAAATGAAATTTTACA  
 CATGGCAAACTGGTATGTTGATAGATGATTGGTATAAGCTTTTAAACATGAACATAAATAACATATA  
 TAAAGATTGGTGGAACTATTGAAGTTTAGGCTTCAGTTGACATTCCCTGAAGTTAAAAAGGATATGTGT  
 ACTCTTTAAATGCAAGGTAACATAATGGATTATTTCCATCTAATTATTAATATTCTAATGATAATCATA  
 GGTATGAAGGGAATGGATAGTATAATGAGAAAGGAGAGGGGGAGATAAAAACTAAAAGTACTAAGGGCA  
 TGTGGATTATGAAATTCACCTTTTCAAAATATTATCATAAACTTTGAGACAGTAACATTGCACCATTA  
 TTTTCTCTCTTTTAAAAACATTTTACTCATTGGTAAAGAGAATATAAACATTGTGGATAACTTTTTTAAA  
 GTAATGGTTGTTTTTTTTTCTCTCTCTCTTAAAGGAAGACATATTTTGTCTGAGCATGAATTA  
 TAATCAAAGTCTGCTAATTTTGGGCAAAATTAATCCATTATATAATACCTTCAATTATAAATCAATAA  
 TACCTTTTACCATTCCTTTTCCAAAAGAACCATGCCTGGCAACATCAGGAACATAGCCAGATGTTTTTGA  
 GGCTGCCTGGGGATCCCTTGTAGACTTTTCTGTTCTTTATGAACCTCTTGCCTGTGGTCCAGCATTGAG  
 CCTCTGCTTCTTCCAAAGCCTTTCCAGGCCAGGCACTTGTCTGTCTCTCTCTCTCTCTCTCTCTCTCT  
 TTTCT  
 CATTTGTTATTCTCTCTTAAAGTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT  
 CTGGAGTGCAGTGGCACAGTCTTGGCTCACTGCAACCTCTGCCTCCCGGGTTCAAGCAATCTCTGCTTC  
 ATCCTCCAAAGTAGCTGGGATTACAGGTGTGCACCACCATGTCTGGCTAATTTTTTGTATTTTGTAGTAG  
 ATAGGGTTTACCTTGTGGCCAAAGCTGGTCTCGAACCTCTGGCCTCAGGTGATACGCCACCTTGGCTC  
 CCAATGTTGCTTACGATTACAGGCATGAACCATGCGGCCAACCTGAAAGTTATTTTAAATCTAGACCTTT  
 ATCTGAAATGTCAGAGTGTGAGATGTTTGTCTCCATTTAAATGGGAACCTCAAATGTCTGAAGGGCTGC  
 TTAGCAATGCTGTTGGGAATGACTGATGTTTGAAGTGGTTGAATGCCTTCACACCCATCCATGCAGCAT  
 TCGTGAACCTCTAGTAACACAGAAGACCAATGCATATCCTGCCTGTGGTTTACAGCTGTGGGTAAAGATT  
 GATCTGGCCACTCTCTTCACTTACAGATGTAGCTGGCTGCCACCCCATGGCTATGACTGGCTCTCGGCA  
 GTGACAAATGCTCATCAGCATCACGTGGATGGGCATAAACTCACCTACCCACTTTCAAACATTAGTCATT  
 CCCACAGCGTGGCTCTTTGTAGATATGATATCAGTATCAAAAGCTTTGCTGTATCAGATTTCCGGGAAT  
 ATATTTACCAGGAACCTGGAGGAAAAAGAGATTAAATAGGCAATGTTTCATGCTATTTTTTTTTCTAG  
 AAAGCCCTTCTCTTCCCTTTTATGCTCTGTTCAATGGATATTTTCTTCTCCTAGAGACACTGAAA  
 AGGAAGGTTAGTGGGAACCGTTGCGCCAGCCCTGTTACTGGTCCAGGTTCAAAGAGGGATGCTCACTTCT  
 GCCTGTCTGCAGCGATTACGATCGGGATATCACTATGGAGTCTGGTGTGTAAGGATGTAAGGCCTT  
 TTTTAAAGAAGCATTTCAAGGTACAAGAGAATTTGTTAACTGCTTCTTTAGTTTCTTCTTCTTCTTCT  
 ACAATTTTTCAGAGATGACTTTCAGAGAAATGTCACTACTGGCTGTTGGCACACAAAGTATTGTAGAG  
 CAGTTTACAGAGATCATGTGTGTTTGAAGTGGGTGGGTGGTGGGTGGGAATTGCAGATTTCTACCCAG  
 AACCCCAAGATTATACAGCCAACTCGAATGGGTCTTACCCCTGTTTACCCACATGGGTGTTGGATAGAA  
 GACATCGAGTTACAACCTTGTGAAGATGTCTCTTGGAAAAATGTGCTCACAAGGAGTTGCAAAAGATTGT  
 TCTTTTCTTTTACTTAAATTTAATATATAGCATGCTTACAGTCATGATGGTGGCTGGCTCCTGAGGAA  
 GAAAGAATAAACACATTTTTTGGAAATGGTCAGAAATCAGGAATTCAGCTACAGTGGACTTTGAGAATTG  
 ATCTAGACACATTTCTTCCCTTAGGCTAGGAGGGTCTCAGTTTACAATCCCTTGTTTTCTGGGCTGTGT  
 TTAGATTATTTCCCTAACTTTCTCTAAACGCCCTTCTGGATTTTTTTTTTTAAATCAACTTGTGATGAAA  
 AGAATCAAACCTCTGTAAATATTTGAAGAGATTATTCTGAGCCAAATATGAGTGACAAATGGCTGTGA  
 CATAGCCCTCAGGAGATCTGAGAACATGTGCCCCAAGGTGGTCAAGCCACAACCTTGGTCTTATACATTTA  
 GGGAGACATAAGGCATTAAATCAATGCATGTAAGATGTACATTGATTCAGCCTGAAAAGGCAGGACACCTG  
 AAAGCAGGGGCTTCAAAGTCAAGGCAGTTCAAAGATTTTCTGATTGGCAATTGATTGAAAGAAATATTA  
 TCAGTAGGAAGCAATGATTGGGTTACAATAAGGATTGTGGAGACCAAGGTTTATCATGCAGATGAAGC  
 CTCCAGGTAGCAGGCTTCAGAGAGAATAGATTGTAAATATTTCTTAGGGGTCTTAAAGGGTCTGTCTAT  
 CAGTGATTCCAAAAGGGGAGGGAGGGTATAATGAACCATGTCTGTCTCCCTTGTTCATCATGGCCTAAA  
 CTTATTTTTTCAAGTTAACTTTGTAATGCCCTTGGCCAAGAGGAGGGACCCATTCAAGTGGTTGAGGGGCC  
 TTAGAATTTTATTTTTTGGTTTATAAACTTCAAGTTGTGCAACCTGATTTCAGGCTGGTCACTCATC  
 TCCCTGCATGTGTCTTTGTACTACTCTTCTCTCTGTACCAGCCCTGATTGTCTGAAGTCACTTTCTGTCT  
 TACTCTTGTCTTCTTATTTGCCCCATAACCTGTCCCTCAACTGCTCCCTCCAGGCAACACCTATGTT  
 TCCATCTGAAAGCTCCCTTCTTTTCTATCAAAGCCCCAATGCTTTGTTCTTTGCCAGTTAAGAAAAGC  
 AACGTTGAGAGAATTCTAGTGTGTAATGGCAATAGCAATTTACTAAATTAACACCCATTGATAAC  
 TCTAAGAGGATGTTTTTACCTTAAGCAGAGAAATACTGATAGAATCCAGGATATGGTGAAGAGTGAATGT  
 TGGTAGTCACCTTCTTACCTGTCCCTGAAATTCACCTGTATGAATGGCAGCTCTTGTCTCTGGATT  
 TATAATTACTAGCTCTGCGACTTCACTCCTAGCCTGTTTCTCTCTCTGTGAATGGAGATACTCATAGG

FIGURE 1, sheet 22 of 66

FIGURE 1, sheet 23 of 66

AAGAAGTCTAATTATCCTAGTTTGTGATGATCTTATATTTGGAAAAATTGAAAAATTCACCAAAAAAC  
TATTAGATCTAATAAATTCAGTAAAGTTGCAGGATCAGTAGCATTCTATATGCCAACAGCAACAATCT  
GAAAAAAAATCTAAAGTGATCTCATTACAGTAGCTACAAATAAAATACCTGGGAATTAACCAATAAG  
TGAAAGTTCTCTACAATGAAACTATAAAACACTGGTGAAAGAAATTGAAGAGGACAAAAAAATGAAA  
GATATTCATGTTCATGGAATGGAGGAATTAATATGTCCATACTACCCAAAGCAATCTACAGATTCAGTG  
CAATTTTATCAAAATACCAATGATATTTTACAGAAATAGAAAAAACACCTTAAATTTGTATGGAACC  
ACAAAAGATCCAGAATAACCAAGCTATCTGAGCAAAAATATCAAACTGTGGAAGAATCACATTACCT  
GACTATAAATTTATACCATAGAGCTATAGCAACCAAAACACGTGGTACTAGCCTAAACAGACATAGGGA  
TCAATGGAACAGAATAGAGAACCAGAAACAAATCCATACATCTACAGTTAACTCATTTTGTAAATAGT  
CTCTTCAATAAATGGTGCTGGGAAAACCTGGATATCCATGTACAGAAGATAAACTAGATCCCTATCTCT  
CACCATATACAAAACTCAAGTCAGATGGATCAGTGACTTAAATCTAAGGCCTCAAACATATGAACTACT  
AAAAGAAAACACGGGAACTCTCCAGGACATTGGGTGGGGCAATATTTCTTGAGTAATAATACCACAC  
AAGCACAGGCAACCAAGTAAAGTGGACAAATGGAATCACATCAAGTTAAAAAACTGCTTGCATGGCAA  
AGGAACATCAATGAAGTGAAGAGACAACACAGAAATGGGAGAAAAATCTGCAACATCTGACAAGGT  
ATTAACAATCAGAATATAGAAGGAGCTCAAACTCTACAAAAAACTTAAAAATCCAATTTAAAAATG  
GCAAAAACAGTGCATTAACATTTCTCAAAAGAAAGATGTACAAATGGCAATGGGTATATGAAAAGAGT  
TCAACATCATTAATTATCAGAGAAATGCAAACTCAAACTACAATGAGATACCATCTTACCCCAAAGTAGC  
TTATATCCAAAAGATGGCAATACAAATGCTAGTGAGGATGTAGAGAAAAGGGAACCTTGGTATACTGT  
TGGTCAGATTGTAAATTAGTACAACCTACTATGGAGAACAGTTTGAAGTTTCTCAAAAACTACAAATAG  
AGCTAACATCCAGCAATCCCACTGCTGGGTATGCACCCAAAAGAAAGGAAATCAGTATATCGAAG  
AGATGTCTGCAGTCCCATGTTTGTGTCAGCGCTGTTTCAATAGCCAAGATTGGAAGCAACCTAAGTGT  
CCATCCACAGGTGAATATAGATAAAGAAAATGTGGAACATATACACCACTATTTCGGCCATAAAATGAATG  
AGATCCTGTCACTTGAACAACACAGATGCAACTGGAGGTCATGTTAAGTGAATAACCAGACACACAAA  
GACAAAACCTCCCATGTTCTCACTTATTTGTGGGAGCTAAAAATAAAACAAATGCAGTGCCCTCATGCTG  
TAATCCTAGCACTTTGGGAGGTCGAGGCAGGCAGATTGCCTGAGCTCAGGAGTTCGAGACCAGCTTGGGC  
AACACGGTGAAACCTGTCTCTACTAAATACAAAAATTAGCTGGGTGTGGCGGCATGCGCCTGTAGTC  
CCAGCTACTCGGGAGGCTGAGGCAGGAGAATTGCTTGAACCCGGGAGGTGGAGGTGTCAGTGAGTCGAGA  
TGATGCTCACTGAATCCAGCTCCGGTGACAGAGAGAGACTCCGCTCCAAAAAGAAAAAGAAAGAAAC  
AATTGAACCTGTGGGATAAAGTAGCAGGTGGTTGCCAGAGGCTAGGAAGGTAGTGGGAGTGGGAAA  
GTGGGAGTCCAGCTACATGGGAGGCTGAGATGGGAGGATTGCTTAAGCTCAGGAGGTGGAGGTGTCAGT  
GAGTTGAGATCACCACTGCAACTCCAGCCTGGGCAACAGAGGGAGACCCTGTCTCGGAAAAA  
GATGATAAATCAAAGTATTTAATAAAATTTGGGCCATCTAGAGATGTTATTTGTAATCAATATAT  
GAAGTATAGTTAATAATATAAGTGAATAGAAGAAAAGGAGCCTTAGAAAGCTTGA AAAACATCGTTGTA  
CTTCATATACATCTTCTTTGCTTACATTATAATGGACAATGCTGCAACAAACATGGAAGTGCAGATATCT  
CTTTGCAACATGAGAGATTCTATGTAGATCTAAGAGACTGTGAAGACTGTTTCAATATTGGAGTTACAATT  
AGCTTTTAAATTACCTCTTCTGGCCAGCTGTGGTGGCTACGCTGTAATCCAGCACTTTGGGAGACCA  
AGGCGGGTGGATCACCTGAGGTCAGGAATTCGAGACCAGACTGGCCAACACGGCCAAACCCCGTCTCTAC  
TAAAAATACAAAAATTAGCTGGGCGTGGTGGTGGTGGCTGAATCCAGCTATTTGGGAGGCTGAGGCAG  
GAGTATCACTTGAACCCGGGGGCGAGAGGTGTCAGTGAGTCGAGATCGTCCACTGCGCTCTAACCTAGG  
CAGCAGAGGAAGTCTGTCTCAAAAAAATAAATACCTTTTCATTGTTTGTCTAATGTGTAGAATTCT  
GCATGTAACATGTCCAGTTTAAAGAAATGATTATAGAGCAATCCCTGTGTAAACCAGCGCTCAACAATGA  
AATAGAATATAATGGCAGCCCAAGATCCCTTTGGGTGGTCCCTGCTGACACCTACTTCCCTCCCTGCA  
GAGGTGGGACAGTCCCTCTTCTGCTTCTGCTGTGTATGGTTTACCACCTACACGTGCATCCCTAA  
ACGATGCAAGGTGATTCTTTGTTTGTGAACTTTATGTGTCTTCTACATATATTTTGTGACTT  
TTTTCTTTTATGACTTGCTCATTTTATTTATCATTTGAGATTCATTTATTTCTCCGCACTGAAATCTGGTT  
CATTATAGGCTTAATGTAGATGTTGAGGCCATATTGTTATTAGAAAGGCCTAAAAATGCCCTATTAC  
TTTCACTTTTCTCTCATCTATTTTATTATAATTTCTATTTCTTAAACCTTTCTCAAAACCATGTAGCT  
GTCTCATCTCTCTTCAACCAACCCCATCCAGACATCTCTCATTGCAACACTACAGCAGGCTGTCACT  
GGTCTCTGCGCTCATCAGTTTGTGCTCTGATTGGTTCTTCGTACTGCATCTGAAATAATTTTGA  
ATATAAATATTCTTAGCTCTTCTTGCATAAGAGAATTAAGTACCATTTGCTTAGAGATTGCTATATA  
ACTAACAAGTTCAAACCTCTTAGGATTTTACTACAATGGGCCTTATTTCTGTACTTCTGTCTTTGAGT  
TGTTTAGATAGCTCTACTTCAAACTTGGTCTGGGCTTTTGTGGGAGGTGAGGTCTGTTCCACATGT  
CCCCACGTTCTTCTGGACCAGTGGCTACCTCACAGGAGCTCAAGAGGCCAAGCCAACTGTTGGAGCAG  
CACATCTATTGATATATCATTGGCTATAAAAAAGTCCGTGGTCAAGCCCAACATCAACTGGTAGGGAAGT  
GTTTGTCTCTGCGCACTCTAGTACACTGCAGGGTCGCAAGGCTGAGGGAGAGAATGAAGAATTGAGAAC  
GGTAATCCACCACAACCTTTGTCAATAGCAGTACTTCTGTCTATTATTAGATTGCTAATTTCTTTATTT  
GTTCTTTTGTATTATTTTATTTGACTATGAATCCCATAAAAATATTGTATTAACCCGAAAGAGGGATAT  
ATGTAAGAAGATATAAGAAGTTGAATTTGATGACTTGATTACAACCTTTGAGTTCTGTGACTTGGAGCA  
AATCAATTTAATGTTAGTCTTATTTTCCACATCCAAAGGATATATTTTATATCTCTCTTTGAGAAATC  
TAAGAATATGACAGAAATAACATATTAGTAAAAAACAGGATATTGAATGTTCTAGGTCTCTTTTACT  
CATTAACAAGGTGACAATGTAGCTTGACTTTGGCTTTGTACCTGTACTGGTCATTAAGAAGATGTCCTCT  
ATCTCTCAGCTGAAAAGTGTATCAGTGTGTTGACCAGGAAGAGATTAACTAAGAGATCATAGCAATA  
ATCTTTTTTCCCTCCCACTCTGCTATAGGACATAATGATTATATTTGTCCAGCTACAAATCAGTGTACA  
ATGCAATTAATGCGGCGCAAGAGCTGCCAGCTTCCGACTTCGGAAGTGTACGAAGTGGGAATGGTGA  
AGTGTGGTGAGTGCTTGCTTCCCTTCTTATTGAATATGGGCCTTGTCTAAAAGCCCTGTCTCTGAGGAAC  
TGGGGACAGGTAGCCGGGAAAAGAGAAGATTTGGGACATAGTAATTAAGTATTGCGTGTGTACATTG  
GAGGGGGCATTGACTTATCCACAGTAACTGCAGAGGACAGAGCTGGGGTGAATGGGAACAGATTATGGGA  
GGCAGATTTTGGCCCCAGGTAGAGAAGAGCTTTCTAGAGTCAAGTGGTCTGACCACAGAATAGGCCACC  
AGATGGGTAGGGGACTTCTAGCCACTGGAATCCTCAACAGGGCTGGGTGGCGCTGTCTGTGATCTT  
GAAAAGTCCAGTTCTAAGGATGAAGTCGTGTAATGTCCATGGTTAAACTCGTGACAAAAAGTAGGA  
TATCTTGTGGGTACTGGGTAGCCATGGGGAGGCTCACACCTATCCCTCGTCTAGCTTCTAGAAGTA

FIGURE 1, sheet 24 of 66

GAAAAATATGTAGGAGTCAGAAACATAATGGAACATGAAAAGTACATACAGCATAGATTTTGTCTATG  
ACAGTCATAGGTGTATACATATGTGTATTTAACATATTCACATACATATATTACATGTATTTTGTACAC  
TCACATACATTCGCATATATTTTATGCACAAAGAAAAGTGAGCACTTTGGTATATAACTGACAAAGATGC  
CAACACCCAGCTCTCCACCTGGCTAGATTTTGGTTCACTTGTCTGTACTCACTTGGTTGTTTATATGT  
ACTCAGAGCAGTTCTGCCTGCCTTATCTTCTGCTAGCCAGTATTTTACCTGTGGTTAATTGTAATTTT  
TCTGTGTATTTTAAAAATTTAAAAACAAAATCCATCACTTACTCTCTGACAAATTCTTTTTTTTTT  
TTTTTTTGGAGTGGAGTCTCGCTCTGTCAACCCAGACTGGAGTGCAGTGGCCATTCTCAGCCCACTACAA  
GCTCTGCCCTCCCGGTTTACATCATTCTCGCTCAGCCTCCCAAGTAGCTGGGACTACAGGCACCCAC  
CACCACGCTGGCTAATTTTTTTTTTTTTTGTATTTTAGTAGAGATGGGGTTTCATCATGTTAGCCAGG  
ATGGTCTCGATCTCTGACCTCGTGATCTGCCTGCCTTGGCCTCCAGAGTGTGGGATTACAGGTGTGA  
GCCACTGTACCCAGCCCTCCCTGACAAATTTCTTAGTAGCTTTGCCTTGTGAGCATTCTCTGCCCTTTCT  
TTTCTCTGTGTATGTAACAGATTAGAACCCTCAGCTATTATAGTTTACAGTACAGCAGAAGTTCTCTCAT  
CTGATCATGCTTCTCTGGCTTCTTAGAGTCACTGATGATCTTCATTTCTCTGTAGAACATCCTGCCAGT  
GCCCATAGCCTCAGAGCTGTATTTTGGTTATCTCTCAAACACCTAAACATTCCATTTCCACCGCTT  
CACATTATCCTTGTGAGAAACCGGTGGGCTTCTTTCAAACCTGTTTCTACTCACTGTAATTGTTACATT  
ATAAAATTTAAATTTACTCAAACATATTATGAATAGGAAAAGACAAGTTTGGTTTTTTTCTGTGA  
AAGTTTAGTTAAGGCCGGGTGCGGTGGCTCACGCTGTAATCCAGCACTTTGGGAGGCCAAGGCATGCA  
AATCATGAGGTCAAGAGATCAAGACCATCTGTGTCAACAGGGTGAAACCTTGTCTCCACTAAAAATACAA  
AAATTAGCCGGCGTGGTGGCATGTGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGAAGGAGAATAGTT  
TGAACCTGGAGGTGGAGCTTGCAGTGAGCCGAGATCGCGCCACTACACTCCAGCCTGGTGACAGAGTG  
GACTCTGTCTGGGGCGGGGGGAGGAGGAAGTTAGTTGAAAGTTTGAATAAAATCTTAAAGGACTAAT  
AGCTATTGAGATAGGTATGGGTGAGACTGGGGGAAAAAACCCATAAACCTTGGGAGATCCTGAATTCAG  
AATTTCTTAGAAGTATCTAGGTTCTTGTCTGTTTTTGTGTTTAAAGAGGCTGAAACTGAAATCCAGAGA  
TAATATCTTATTTGATGTTTATGACAGAAAGTGACTTTGTCTAATTGGCCAGATGCTTAAAGAGAAAG  
CCTTGGCACTCTGACAAAAGATTGCAATAAATGTTTTAAGTTTAAAGTAAACTATTTTAAAGTGAGTA  
TGTGTGTGTGTTTTAAAAATGATTTCCAGTTAGTCTTAAGAATGCTTTTATTATACTAGGATCCGTTGC  
ACAGCTATTGCCCTCATGGCTCAAGGCAGTGTATGCAGGGAAGAGCATGGAGGTTGGATCCCATAGAGTC  
TATGTTTTCAATTTCTGTTTCATCACTTCTCTGCTGACTGTAACCTGTGCTCAAACTACTGAATCACCTTTG  
GCCCTTGGTTTTCTATGTCTCTGAACAGAGATATCTGCTTCACTTGGTTTTGTGAACAATAAGTATGAAAA  
CATATATGAAGACTTAGACAATATCTGACACTCAATTTAGTTTTCTTCCATTCTCTCTCTCTCCCTG  
AAAACTCATATGAGCTTTGATACAACACTGTTTCATGAGACAGAGTACAGAGGGATAGTTAAAGAAGCT  
TTCATAGAAAAGGGAATGAGAGAAAGGTTGTTGTATTTAGCCAGAAAGTCTAAGAAAAGACTGTATCTC  
TTTGGAGATTATGGAAGAAATGAGATGGGTGTTGCACATATACAATGGGATATTTTGGCCCTTCACTGAC  
CATAGAGAAAGATCATTAGAGATGAACTTCTTAACCTGTCTCTCTCTCTTCCCATCACTCTTCTTATC  
TGCCCTCCCCAAAACCCCTCATGATGCTTTTTCTTCTATCAGGTTTGGAGGACTAGAGATTCTACCTGC  
TTTGTGGATCTGCTGCACCATCTGCTTTTTTATTTGAAACCATGTAGTCTGTTATCACCCCTTTCT  
TCTGAATTTCTGATCTTGTCTTTTCTACTGAAGTATGGATGTGGTCAATATAATGGTAGGACAACACCCAC  
CTAGACTAATTTATGGATGAACTTCATTATAAGGATATACTGAAATGTAAGGAGCCAGGAAATCCCTC  
TGAATAGCCATGTATTTGGCCTATATCCCCATATGGGACAATAGCTCAACATATTTTGGGTGCCATATC  
TTTATATACCTGCTGTATATCTTCTGTGAAAGGATTGATAGGTGGGTAGTATAAAATAGTGGTTAAA  
AGCACCAGCTCTGGATTAGGCTACTGCTTGGGTTTAGATCCTGCTTCTGCTATTTTCTAGCTGTGCCAT  
CTTAGACAAGTTATTTGAGCTTATGTTGGTTCTCTCTGTACATTGGAGACAGTAATAGTTCTGTAC  
TGTAGGGTAGCTGTGAGACATGTGCAATATGCAATGCCTGGTGCATAGAAGCTTCCAGTAGACATTAGC  
TGCCATTAGTGTGCTTATCACTACGATCATCATCTTTGGCTGGGGCTATTACCACCTGCCTAATA  
TGGAGCACTCGATTGGTGGAGCTGCTCATTAAAGCTCACTCAGAGGCAGCTGCCTAGGTTACAGTGTCAA  
AGCCACAACACTAGAAACATCCTTGATAGAAAATGAGCTCCTTGTCAGGGCTTTATTGAGCTAGAACG  
CCCCAGAATTTCACTACAGGACCTAGAAATGTTAGACTTTGTCAAGTGAATTTGTCAAGTAAATTTGAACG  
TATGAATTTCAAAATCTCTCACTTTGGGTATGTAAGGGTATATAAATCTGTTTGTAAATTTCTTATCT  
TATATACTCTATACTCTACAAAAGAGAAATGTATGATCAGAAAGGTGCTTTTTTTTTTTTTTTTTTTTT  
TTTTGAGACAGGTATCACTCTGCTGCAGCCAGGCTGGAGTGCAGTGGTGCAATCTTGGCTTACTGCAA  
CTTTTACCTCTCGGGCTCAATTGATTCTCCACCTCAGCCTCCCGAGTAGCTGGGACTACAGGTGTGTG  
CACCACCATGCTGGCTAATTTTTTGTATTTTTTGTAGAGACAGGATTTCATATGTTGCCAGGCTAGTC  
TTCAACTCTGGGCTCAAGTGATCCCCCTGCCTCAGCCTCTCAAAGTGTGGGGGATTACAGGCATGAGC  
CACCTTGGCTAGCAGAAAGGTGCTTTTTAAACATATACATTTTGCAGCAAACCGCCATGGCATGTGCATA  
CCTATGTAACAACCTGCATGTTCTGCACATGTATCCAGAACCTAAAGTATATTAATAAATAAAGAAA  
AACATACATTTTTGCTCCATTTTATCCTGGGTGATAATTGACCTTAGCATTCTGCTTGATTACTAATAAA  
ATGAATGTATTTTAGGCCTTTAAATCTTTTAGCAGTAAATTTGGTTCAAATTTTCTGAATAAATAGAGC  
CCTTCTTCTACTATAACTAGTCAATGTTAAGAGGAAATCTGACAAATTTTCTGGGAGCCAATAATTT  
AAATTTGCTCACATTTTCTAACTAATATTTATTTTAAAAATGTAACAAATTTGATTTAGTGAATAAACAT  
AATGATGGGTGATATAAACAAGCAATTTGAGATTTCAACTTTAGGGTTCTTTTTTTTAAAGGGAATTT  
CATATAAAAGTTATAACCATGCTAATGACATCCTTACTTACAACATGTCTTTCTTAATTTCCATTTTACA  
TTTTTTGCTTTTAAACCGATGAAACCTTATAAAGATGTTGGTGTCTCAAATGTATAGGGATTTGGAAGTTAT  
ATTTTGTGTTGATTTCATTTTCTTATCGTCAGAGAATATGATCTGAATAATACCTATTTTAAAGATT  
TTCTTATGCTGTAGCATGTGATAATTTTGCAAAATATCTATGGCCTTTGTAGATCAAGCTTGTTAATT  
ATGTGGTTCAAATATTTCTGCATTCTGACTTTTTGCTCTTTCAGCTGTTGAGAGAGAGATTTAAATAGCCC  
GTTATAATACTGCATCTGTAGTTTCTTTTTCTTTTCAAGTTACTTTTTGTATGTGTTTGGAGGCTGTG  
TTTTATTGTTGTCTATTTATTTATTTATTTATTTTCAACCCAAAGTCTTGTCTGTCAACCCAGG  
CTGGAGTGCATGCGACCGTCTCGGTTCACTGTGCTCCTGGGTTTGTGCGACTCTCCTGCTCAGCTCT  
TGAGTAGCTGGGACTACAGGAATGCACCACCATGCTGGGTAATTTTTGTATTTGTAGTAGAGATGGGGT  
TTTTCCATTTTGGCCAGGCTGGTCTCAAACCTGACCTCAGGTGATCGGCCACCTTGGCCTCCCAAT  
TGCTGGGATTACAGGCATGAGCCAGCGCACCTGGCCTTGTGTTTTGAAGTATATGAGTTTGAATTTAT

FIGURE 1, sheet 25 of 66



FIGURE 1, sheet 26 of 66

GTGAAGGAAGCCCCGGTGTCTCTGCTTTGCTTTTGAAGTGCTTCCCTCCCCAGAGATTACCTGTTTGCA  
AACAGTACTGTGACCAACATGGGTATTAGGTTGTGACGACCTGCTTCGTTATATATATTGCTCTTTATT  
TATTTATTTATTTATTTATTTTGGAGACAGGGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCGTGA  
TCTCAGCTCACTACAGCCTCGACCTCCTGGGCTCAGGCGATCATCCCCTTCAGCCTCCAGAGTATCTGG  
GACTACAGGCACCTGCCACCATGACCAGATAATTTCTGTAGAGATGGGGTTTCTCCATGTTGGCCAGGC  
TGGTCTCAAACCTCCTGGGTGCAGGCAATCCACCCACCTTGACCTCCCAAAGTGCTGGGATTACAGGTGTG  
CTTGGCTATATTTGCTGTTTAGGATAGAATCACCCAGAAACAGTGCTTCTACCCAGAAGAAGGATCTTAA  
CACTGGATAGGAAATTTAATCAATCAGAGAAATCCTTGCAAGTTGAGGCCTTGTTTTCTGTGAGGGCTG  
GCACTGCTCTCTGCAAGCCTCCAACCCCAACCTCCACCTACCCCATCCCCACCTACCCCATCCCCACC  
CCTTCTGATCCCACTCAAGGATTGGGTGACACAGGCAGGTCTTCTGACTGGCAGCCAAGCATCAACATTC  
TCAGTAGTGCAGAGGAATTATCAGGACACAGCTAACAAAGATCAGTTCTGAGCCGAGGTCGTAGTGCTTG  
ACAAACTCTAAATGAAGTATATTTGTCTCTAGAAGGGTCCAAGACTGGAACCTAAGTTGCGCAGCTTAA  
CTTCAAAGTTTCTTCTCTTAAATGAGCAGTTAATCACATCTATAAAATATCAACTCCCTAATGGTTTGTG  
TTTTCTTAGTGTTTAAACATTGCCATTCTGTCTCTACACACACAGGGAGCTGAGGAGGAGGGGTGGGGG  
TGCTCACCCGCTCTTGCTTTCCCAAGCTTTTGGAGCTCAGCCTGTTTCGACCAAGTGCAGGCTCTTGA  
GAGCTGTAGGATGAGGTGTTAATGATGGGCTGATGTGGCCTCAATTGACCACCCCGCAAGCTATC  
TTTGCTCCAGATCTTGTCTGGACAGGTGAGAAAAAATACATTGTGTTTCTTCTGACTTGTGTTGAGTA  
AGGTGCTTAGTGAGTGGGAACAAAGTCTGGGTGCTGCAATTAATAATCTCACACTTGACGGGACAGGAT  
GATAGCATCATCAGCTCCTTCACTGGGTCAAGAACAGAGAAGGAGAGAGTTGGGTCCAAGGATTACAGG  
TCTGTGACTCATTTTAAATCTGTGGTGACGAGCATTTACAGGCCAGCGCTTAAATAGGGGACTGTATC  
CCGTAGGTATGTGGCCACTATGTGTATAAGTCGACACAGATTTTCTCCATTAAAAATTCATTTTCAGG  
TTATAATCTTAAAGTTGTCTGCTGTTTTTTGTACCTATAGTGACCAATTATATCTGGAGCTTTCTGGACA  
GGTGATAAAATCTTAGAAATGTGCCAAGTTTATTTTACATGCTTTAACTCACTCTTTTGTTTTTTTTT  
GTTTTGTTTTGTTTTGTTTTTTTTTTTTTCTGAGATGGAGTCTCTCTGTGTGCTCAGGCTGGAGTGC  
AGAGGTGCAATCTTGGCTCACTGCAACCTCCGCTACCGGATTCAAGTGATCCTGCTGCTCAGCCTCTC  
AAGTAGTTGGGATCACAGGTGTCCACCACCATGCCAGGCTAATTTTTCTATTTTGTAGTAGAAGTGGTT  
TCACCATGTTGGCCAGGCTGGTCTTGAACCTCTGACCTCAGGCGATCTGCCCACCTCAGCTTCCCAAAGC  
GCTGGGATTACAGGCGTGAGCCACCATGCCGATCTGCTTTAAACACATCTAATGCATGTATATATAGC  
ATTTTTGGCAATAGCGGTGAAGGAAGGGTTACTAAACTATATGAACTTAACAGAAAAATGGGACATGA  
TGCTGTATCTTGGTTGTGTTGATTTTCTTTAAAGATGACACAGAAAGGAACAATTTTTAATTGACT  
TAGGTGAACGTGTTATGGAGGGAAAGCTGGACTGTATAAAAAATCTCAAGCTTTTGTAGCAGGAAAGTAGA  
ACACCTCTTGGTGTAAATTCGAGCAGTTCGAAATCTTCTTGAAATTGATTTCCACATCTCTTTATGG  
AAAAAGTGCTAGGTTGAATGTTAGCCACATCTGACTCTGCATAGCGTGGGAGGATGCCTAGTGTCTACC  
CCAACCTCTGCATTATAATCTGTACCACTTTAGATCATCAGAAGACCTGTGTTACACAGATGAAGAG  
TGATGCCCCAAGGTATCAGTCCCCATTCTGCCTTTTGTGATGGTTGACAATGTTATTAAGAGCACTGT  
TCTGATAAATGGTGTGTTGATAGAGAACAGATCCTCTGAGAAGAGCTGGAGGACTGATGTGACTTGAACA  
GGAGCAAGCCCAGGTGGTAAACCATGGAGGGAGGCTCTGGAAGACCAGAGAAGTTACAGGCACAAGACCC  
TTCAGTAACAAACAAAATAGTTAACCTATTGGCTTGTATGTGCTTGGCAGCACCTTATGCATTAACTTA  
TGTCACACATTTAATCTTACAATCTTCTGCCCCCTTTGAGGGAGTAGGATCCATTATTATCTCTATC  
ATTCAATATGGTGTGTTTGAATGGAGATTGAGAACTGCTTACAGGTAGGATAAATAGGTGGTGGAGCTG  
TGGGGGTTTGCCTAAATGGCAAACTAACTCTCTACTTTATTCTACCTGTTGTTATGGGTGACAATGTTGAC  
AAAGAGCACATTCTGCAGAACAGAGATGTTTTGGTAGAGAACAGCCCTGTTTTACTTGTAAACACTGCA  
GAAACCCACTCTCCCCACTGTCATCTCAGGCTACCATGTCGCAAGGCAGGCTGAAAAGCCAAGCACCTAG  
CCAACCTTGGCTTCTCATTTGATTTGCTTGGTGTGTTTAACTGGGGCCAAATATACATATGT  
ATAAATATACACATATAATTTTCTTGAAGTTAGTCTTAGGAACACATTCCATCCCTTGACAAATAATTT  
GCAGACTTAGGATTATTTATCTTTTGTCTTGAATTTCTAAATTGATGCCAAATTTAGTGTATTTTTTG  
GTGACTATTTTCTTCTGGTTTTTAGTACAATTAACCTCTCACTCTCCCATTTCTCTGTATGCGTTCTTT  
AATTCCTGATTTGTGTGATGTTTGTGTTTGTGTTTTTGTGTTTTGAGATGGAGTCTCGCTCTGTCCACCA  
GGCTGGAATACGATGGCATGATCTCAGCTCACTGCAATCTCCGCTCCCAAGCTCAAGTGATTCTTGTGTC  
CTCAGCCTCCTGAGTAGGTGGGATTACAGGCATGTGCCACTACGGCTGGCCAAATTTTGTATTTTTTTTT  
TTTTTTTAGTGGAGACGGGGTTTTACCATGTTGGCCAAGCTGGTCTCGAGGTCTGACTTCAAGTGATCC  
CCAGCCTCAGCCTCCCAAATTTGTTGGGATTACAGACGTGAGTACCACGCCAGCCTACAGTCTCTAGT  
ATTTTTAACACATTAACCTTCTGAAGTCTGGAACCTTGAAGTCTAAGATAGTTTCAAGTTACTTAGTCTCTC  
TTATACAAATGAATATACTTTTATGTAATAGGTATATTGTAGAGGAGTTGCTATTCAAAAAGTCAGGA  
GTCATGCTCCATAAAGACTTCTATTACGACTCTTTTTTGCAAAGTGAAGGGAATCTTACACCATTTGAA  
AATACTGTCTTCTGCTGGATTGCTCAGCAGAGCTTCTCAAGTGGTAAATATGGCTGAATAACAGTGA  
ATACAATAACAGCTTGCCCATTTGTGGATACTGAAACTATAATTTCTGTTTCCCTTTATTTCTTGTGAGG  
TGTCACAACAAGAAAATTTGTGTCTACTGAGGATGAGAGGAAAATCTCATTACTTCAGCTTATTTCTAA  
GCATTTAGTTTTTCTTTTACTAACCATAAATTCATCATAAATTCACGTGAAGATCTAAAGAACCTGACT  
CTTAATTGCTCAAAAAAAAGTCACATATGCAAGACATTTTGTGTCTTAGTATCAACAGGCACTGA  
CTAATGTTAAATTTATTAGTCAGAGGAAGTTGTATCTGGCTTGATCCCATTTGGGACATTTGAGATAG  
GTCCGTGAAATTTGATATGTATAAATGTCTTGAGTTTACATTACATTAGTTATTTGTATGCTAAATCC  
TTCAAGATAACCACCGAATTTTCAATCCCAATCTAAGCCTTAAACACTCCCTGCCATTGCCATACACA  
CAGAGGTAACACCATGGTCTGTACCCAGTGTGTGCTGCGAGCAGAGATATATATATATATACACAC  
ATACATACAAATAGTGTA  
CCCCAAGGGAGGCCACTCATTAACATTTTGTGTTGTATTAACAATATTTCTTTAGGCCAGGCA  
CGGTGGCTCAGCCTGTAATCCAGCACTTGGGGAGACTGAGATGGGTGGATCACCTGAGGTCAGGAGTT

FIGURE 1, sheet 27 of 66

FIGURE 1, sheet 28 of 66

FIGURE 1, sheet 29 of 66

AAAGGTTTGTGGCAATGCTGCATTGAACAAGTCTGTTAGTACCATTTTTTCCAACAGCATGTGCTCACTTT  
ATGTCTGTGTCAAAATTTTGATAACACTTTGCAATATTTCTAACTTTTTTCATTATATCTATTACAGTGATC  
TGTAACTCAGTGAATTTTGTATGTTACTATTGTAATGTTTGGGGTGCCACAAACTATGCCCATATAAGCT  
GGCAAACTTAACCTATAAATTTGTGTCTGACTGCTCCACCAACTGGTGGCCCCACCACCATCTGGAA  
TTCTGGGAGAATTTACCATGCATTTGAGGAAGGAATAATACCAAGTGATATGGTTTGGCTCTGTGCTCC  
CACCCAAATCTCATCTTTGTAGTGCCCATAAATCCCACATGTTGTGGGAGGGACCTGGTGGGAGATGATTG  
AATCATGGGAGCAGGTCTTTACTGTGCTGTTCTCATGATAGTGAATAAATCTCAGGAGATTTGATGGTTA  
TATAAAAATGGGAGTTTCCCTGCACAAGCCCTTCTCTGTGCTGCCGCCACATGAGATGTGCGCTTTCAC  
CTTCTGCCATGATTGTGAGGCTTCCCCAGCCATGTGGAAGTGAAGTCCAATAAACCTTTCTTTTGTATA  
TTGCCCAGTCTTTGGGTATGTCTATCAGCAGTGTGAAAATGGACTAATACACCAAGTTTACACATACTCTT  
ACAGAAAATGAACAGCATGGAATGTTTTCCAATTCACTCTGTGAGGCCAGCATTAATCTGATAGAACAC  
TCAGACTAACACACTAGAAGAAAAGAAGACAACAGACCAATTTCCCTCATGCATGTATAAGCAAAAGTTC  
TCTAAATTTTTTTTTTTTGGTAACTAGAATCCAAAAGTGTATTAAGAATAGCACATCATGAACAAGC  
AGAATTTTTGGGAATACAGGTTTCTTTAACATTTGAAAATCAATCAAAATTCATATTAACAGAAATAATA  
ATGAAAACCATATGATTTTATATATATATATATTTTTTTTTTGTGTTGTTGTTGTTGTTGTTGTTGTTT  
GTTTTTTTTTGGAGACAGTCTCACTCTCCGCCAGGCTGGAGTGCAATGGTGCTATCTCAGGCGCTCAC  
CGCAACCTCTGCCTGCTGGGTTCAATCAATTCGTCTCAACCTCCTGAGTAGCTGGGATTATAGGTGCCT  
GCCACCATGCCTAGCTAATTTTTGTGTTTTTAGTAGAGATGAGGTTTACCATGTTGGCCAGGATGGTCT  
CAAACTGCTGACCTCAGGTGATCCACCCGCTTGGCTCCCAAAGTGCTAGGATTACAGGTGTGAGCCAC  
TGACACTAACACACTAGAAGAAAAGAAGACAACAGCAATTTGACAAAATCCACATCCACTCTGTAA  
AAACACTGTACAAAACAGGAATAGAAGGAACTTCTCAATCCATTAAAGGGCACCTATGAAAATCCTAC  
ATTTAATATTACTTAATCACAAATCAGGAACAGGCAAGTATGTCCACTGTCTTAATTCATTTCAACA  
TTTTACTGTAAGTTCTACCCAGTGCATTAAGGCAAGAAAAGAGGTAAAGGCATCAATATTGGAAGGTA  
GAAGTGAAGCTTTTTATTAAAAACATGAAATCTATGTAAAGTCTTAAGGAGTCTAAAAAATGTGA  
TTTAGCAAGTTTGAAGGTGAAGGGCAATATATATAAATCAATTGTATTTCTGTGTGGCACCAGTGAGC  
AATTGGAATTTGAAATGAAAACCACTACCATTACAATAGCATCAAAACATTGTGAAACCTTGGGAATAA  
ACTTGCAAAAGACATGAAACCTGCACACTAAACACTGCAAAATATAGCTGAAGGAAATTAAGAAAATCCT  
GAATAAATGGAGAGAGATGTTAATGGATCATAAGATTAGTATGTTTTCAATCTATAGATTCAAACTGA  
TAAAAATCCCAGGAGGCTTTTTGGTAGAAATGATAAGCTGATTCTTAAATCATGTGAAAATGCAATGG  
ACATAGAATAGTCAAAACAACTTTGAAAAGAACAACTGGGAGGACTTACACTACCTGATTTAGAAGAT  
AATGTGGTATTGATGTCAACAGAAACAAATAGATCAATGGAACAGAGAGTCCAGAAATAATCTATACAAC  
TACAGATGTTCTCAATTTATGATGGGGTGATTCCCAAAAACCCATCTTAAGTTGAAAATATTGCTAG  
TCAAAAATATACTTAACACACCTAACCTACTGAACATCATAGCTTAGCCTAGCCTATCTTTTTTTTTTTT  
TTTTTTTTTTTTTGGAGCGGAGTCTCGCTCTGTGGCCAGGCGGGAGTGCAGTGGCGCAATCTCGGCTCA  
CTGCAAGCTCCGCCCTCAGGGTTACAGCCATTTCTCTGCCTCAGCCTCCCCAGTAGCTGGGACTACAGGC  
GCCACCATCAGCGCCCGCTAATTTTTTTGATTTTTTAGTAGAGACGGGGTTTACCCTGTGTTAGCCAGG  
ATGGTCTCGATCTCCTGATCTCGTGATCCGCCCGCTCGGCCCTCCCAAAGTGCTGGGATTACAAGCGTGA  
GCCACCGCGCCCGGCCAGCCTAGCCTATCTTAAATGTGTTTCAAGTACTTACATTACCCTGCAGTTGGGC  
AAAATCATCTAATATAAAGCCTATTTTATAATACAGTAATGAACATTTTCATGTAATTTATGGAATACTGA  
AAGTTACTGTACGTAAGAAACGAAAAACCAATGGTTGTATGTGTACTGGAAGTACAGTTTCTACTGAAT  
GCAAAAACCTTGACGCTGAGTGTGTTTATTATCTTGGTTGTGGTGATGGCTCCACCATGTATATGTATGTC  
AAAGTACATCAAAATCGTACACGCAAAATATGTGAGGTTATTGCATGTCAGGTATACCTGGATGAATCTG  
TAAACAATGTAATGAAAGCAAAACAAAAGATTAAGAGAGCAAAAGTTTGTAGGCTAAATGGAAGAAAT  
ACCACCAAGCGGGGCAACCAATACAGGGGAGGCAAGGAAAGGACCACAACATCTAACTCTCTCAGCCA  
GGTAGGTCTCTTAAGTCAAAAGGCTGCGAACTTCTCTATTCCATGTTAGGATAGCAGAGTTTCCAAGCGC  
TGCAATTTGGTTGCTGCTAGATGGCCTTGCCAGGCTAGATAAGCATTTGGGCTGTCTGACGATGGTCTCCTG  
CATAGTTTGGTCTCCTGTTTTCTGTGTATGTGACATGCTTAAGTTAGGATTATGTCACTCAATCACATC  
TGCGTAGCTACAGCAGCGTATGCTGGCCAGGTCGCGGTTTGTCAAGTATGCTTTTAAAGCTGCCCAT  
TCTGGGTTATGCATATCTACTAATAATGGCTATAATATGGAATGGAATTAAGTGTGTCATCCAGCTAAA  
TTTCAGCTCAGTTTCTGTTATGTATATTAATGACTTCTAAATACTAAGGATGTCAAAATGATTTAGATAT  
AATGCTTTTGGTCTAGAATGGGATATATACTCAAAATAGTTAATCAAAGGTCTGATCCATGGTGGGCTTAA  
GTGGAGGCGACATATTTCTCTCTTGGGAGGCAAGGAAAGGACCACAACATCTAACTCTCTCAGCCA  
ATCCTCTTCCATATGCATATATAGGTTGTGTGGTACTTGAATTCCTGTATCATACTTAGCCTTTGATA  
TGCTCTTGAGAGTAAGAGACAACAGAAAAATGTGCATTTAACAACCTGTTACAATGCTTGTAGAGTG  
TTTTTATAAACTCTAAGGTGTTATGCAAGTGTATAGTTAATAAATAGCCTACCCAACACCCAACAGAC  
AGACTGGCCATCTTGCCACCAATCCTCCTGGATAGAATTAGAGGGGATGGAATTTAGGAATTAG  
AGTGAATTAATTAATGATTATCCATAGTCTTTAAAAATTTTTAAATTAGAAACAAGTCTATTTAAAC  
AGTTTTAAGATTTACAAAGGATGAACTTTTCATTAAATGAAAGAAATAGAGGGGTAAAGCCAGGAAATC  
CTATTTTACATTAAGAAAATATTAAGAGACACTGGCTTAAACCTAGTTCCCTCTGAGTTTATAGGGAG  
AGTTCCTCAGTGGTGGGTTGGGAGGAAAGACATAGATGGATGCTGATGAGGAAAGATGCGGGGG  
TCCTTTTCTGTTGACCAAGAACACTGGGGCAAGCACAGTTGAACAGCAGCCTGCAGCCTCACACCATGG  
CACCTTTTGAAGTCCCATCTGCCCTCATGTGCTGGGGGAGGAGGTGGTGACAGAGGGCGTGGGTCATGGC  
CAGAGGTTCCCTTCCCTCAAAGCAAAAGCAAGCAAGCCACATACGGCTCCCCAAAGCCAGGACTTCTTCCC  
TTTTGGTCAAGTATCTGGGACTTCTATTAGGACATTAGATTTTTCTCATTTATTTGGCTTCAGTCAAGGAA  
AGCTTATGTTTTTCATCCTTTGAACAAATCAGACGTGGCAATCTTGAAGGAGAGGTGGCTGTCCCCACC  
ACTGTGCTGCTCAGAATGTCACAGGTGGGCTGGTGAGAGGAGCACACAGCTGTTCCAGCTGATAAAGG  
GGAGAGAAGATGTGTCCTTGATTTTATTTCACTTCTTGGTATGTGTGAGGCATGGTGCCAAGATCTT  
GGTTTTTTTGTGTTTTTTTTTTTTTAAACTTCTTCCGTTTCAATCAAAAGTAATTTAATTTTGTGTTA  
CAGTGAATCCTAACTGATGTTTTTACTTTTGGGGGATGGAGAGGGTGCTATATTTTTGTGGTTTTCTGTG  
CCTGACTGGGCAGAGCTTGGATCTTGCTCCTTGCCCATGCTGCCAGGGCTGCCACTTAGCAAGTAC  
TCTGTAGATATGTAATTTGATGAGCAAGGGCTGAGCATGGATGTCTGAGGTGCAGGCATGCACCTGCTGAC

FIGURE 1, sheet 30 of 66

TGGAGAGCCAGGCAGCAGCATGGGTATTCTTCAGCACAGTTCTTTCTGGGAGGGTATTCTTTCTATG  
TGATCAATGAGAACAGGAGTCTCCAGGATAATTTATGTAAGTCAGTCTTTTGTATATACACTGCCCCC  
CTACCCACCATATGTAATGGATTTCCGATATGCCTTCCACAACAGCAGTGCCTCACCTCCCCAAAC  
CGCTGTGGCTGATGGACTCTGGGCCCCAGGTGGAGCTGTGCTGCCCTACAGCCTGCAGAAGGCCAGGG  
TCTGGCCTTGGCAATGACTGTGGTTCGTGAAGTGGGTAACACAATGACACATACGTGTTCTCTGAGGGGA  
AACTTCGTGACACAGCCAGGGAATTTATGTTATTGTAACTTGGTCTGAGGCGTCTTTTATTATT  
ATTATTACTATTATTTTAGTAACAGCTTTATTGTGATATAATTCAATTTACCATATAATTTATCCATATT  
AAGTATACAGTTCAATGTTTTAGTTTTATTACGGTATGTGGTGCAACCATCACCAACCATCAATTTTGA  
ACATTTTCATCACCTGAAAAGAAACCCCATGCTTCTTAGCCATCATTCCCCTCCCTATCCACCCACA  
GCCCTAGGCAACCACTAATTTGCTTTTCTGACTCTATGGATTGCGCTATTCTAGACATTTTATATATAAT  
GGAATCATACAACATGTGGTCCCTTTGTGCTGGCTTATTTGCTTAGCCTGATGTTTCAAGGTTTATCT  
GTATCAGTACCTCATTCTTTTCTGAGTGAATACTATTCCACTGTATGGATAGACCACATTTTGTGAG  
CCATTCTGTCAGTTAGTGGACATTCACCTTTTAGGCTGAGTTATGCTGCTATGAACATTTGTTTATAATCT  
GAGGATTTGTTTTATATTTTCAATCTTTGTCACCTTTGAACTGAGACATGTACAGGCACACAATTTTGGC  
TCCTTTTGGAAATCCCAGACATAGTATTGCTTGATGGCAGCGGAAGTCCATGGAGCAGATGTCATGCAGC  
TGAACACAGCTGAGGCTAGTTAAAGGAAGTACTTTGTTATGAGATGGGGTTAATTTAGGAAAGTAA  
GCTTGAATAATTTTCTCTGACTTTTGATAATTTTCTGTGTGACCTAAAACATACATTAGCATGCATA  
TTTACCATTTCAAATATGATGTGTTTGGCTAAAAAAATAAGGGTCTGGCCGGGCACAGTGGCTCAGC  
CTGTGAATCCCAGCCTTTGGGAGGCTGAGGCAGGCGGATTGCGAGGTCAGGAGTTGAGACCAGCCTGG  
CCAGACTCAAGCGAGGTGTGGTGGAACTGCAGATGAGAGAAGCGGGGAGGCCCTGGTACCTCTGATAG  
ATCCAGCTACTAAGGAGGCTGAGGCAGGAGAATTGCTTGAACCGGGAGGCGGAGGTTGCAGTGAGCTG  
AGATTGTACCACATGCATCCAGGCTGGGTGACAGAGTGAAGTCTGTCTCAAGAAAAGAAAAAAGAA  
AGGCTGTGCGCCTCAAAGCACTCATGTCCAGTCTTGCTGAGGGCAGAAGGGTGGCTGTGGGGTGTGTG  
GGGACTCAAGCGAGGTGTGGTGGAACTGCAGATGAGAGAAGCGGGGAGGCCCTGGTACCTCTGATAG  
AGTATCAGGGGACACCTCAGACCAGACTTAGGGTGGGATGGTAGGGAGGTTGGGGGAAGCTTCCAGAAGG  
AATTTCTGACAGGTTGGAATCTACAGGAGGAATGGGTATAAATGAGCAAAAGAAATCAGGGTAGAGAAAG  
AGGAAGGAGAGGTTTCCAAGCAGCAAGTTGAGCATGTTCCGAGCACCACACATTCAGGGAGTTGAGAGG  
GGGACTCAAGCGAGGTGTGGTGGAACTGCAGATGAGAGAAGCGGGGAGGCCCTGGTACCTCTGATAG  
CTGCACCAGGTGGTTTGGACTCTATCCTATGAGCTGGGAAGTCATTAAACGAGGCCCATGAGCAGATCT  
GCTTTTTGGCCTCTCAGAAGGGGACACAGGGGCCAAGGGTGGGGTCTGTGTTCCCTGCGGTGGGAGGG  
CAAGTCATCTCTGGGGGACAGTGGGAGGTTTGGGCTGTGGGGGATTCTGGAAGAACCAATGTGGAGA  
ACAAAGTGAGCAGAGGATTGGAGAAGCAGCTTCAGGGCTATTGAAAAGATGAATATTTTAAATTCGTAT  
CATCAGACATTATGGAGGTCCTTAGGGATGTGGCAAAGCACTACACTTACGTAATTGTGCTTCAGAATGT  
CCCTTGCCCTTACCTGAGTTAACTTAGTTGAATTGAGTGCCTTAATTGAAGTGAAGTGCCATAAAAA  
TAGAGAACAACCTGCCAAAACAAATCTGTGGTGTGTTGAGCAGCAGCCATCATCAGTCTCATGACAG  
CCAAGCTCAGCAGCTCCCTGGTGTGATTGCATATTTATTCTTGCTTGAATGGAAGCCTGGAAGAG  
AAGCTAATTATTAAGGGAATCAAGGAGTCAGGCAGGGGTGCGGGGAGGAGATTTATCTGAGCTGTTAC  
TTTGCTGCCATTGGGATGCCACAGTATCTCAATCCTAGAGTTGGAGGGGAGTTAAACACAGGGCAGGGCA  
GGATGGGGGAGGCGACCTACCCAGGACGTGGCTGTGGGGACCTAAGCAGATGTGTTCTGTCATGCGTTGC  
TCAGTGAGGAGCTGAGGCTCAGAGAGCTCCAGATGGTGGCTAGAAAGTAGGCTGTCTGACTCCAAATCA  
GTGGTCTTCTGCCCCAGCCAGGTGCCACTCAAGCGAGATGCAGAGGTGGTAGCAGGGGCGCTGCCATGG  
CTGGCTGCGGCAGCTGGTACACACAAGGAGGTGGCAGAGGAGGCTTCATCACATTGGCCATTCTTTGTT  
TATTAAACTCCCTTTAGATGGGGAGCCCTCCGTGGGGCTAAAGTAGAATTAATCTCACCTTCTGACCAT  
CTCTGTATCTGTGCTGCAGATGAGAAACACCAGTAATGATTTCGGGAGACTAGATATACTCGCCACGG  
CAAGGCCACAATTATGGGCCCTGGTGGCACTTCAGGTGGCAATTTAGTCTGTCTGCATTAGGCCAGGCTT  
CTCTCTAGCTCTGTGACGGGGCTGGCTCTCAGGGAAGATCCCTGGGGGAGGTAAGACCATGCTTATAA  
GCTCCTGCCACATGCAGCTGTCAAAGCAACCAGATCACCTCGGAGCAGGCGCACGGAACAGCTGAGC  
ACACGACTTCTGCTCCTTTGCTCAGAGCAATGACTTCTGGCTTTTATTCTTTGTCCAGGTATGTACCTC  
TGGTACAGCGACAGGATGCTGACAGCAGCGGAAGCTGGCTCACTTGCTGAACGCCGTGACCGATGC  
TTTGGTTTGGGTGATTGCCAAGAGCGGCATCTCTCCAGCAGCAATCCATGCGCCTGGCTAACCTCCTG  
ATGCTCCTGTCCACAGTCAGGCATGCGAGGTACGCGCCCTAAGGAGCTGCTCTGCTTGGGCTTGGGATGG  
GATTATGTGCTCCACGGAGGGTGAAGTATTGGGAAAAGTGTCTGCAAGTTAAGGAAAATGAATGCCCTG  
AAAGGGAATGGGGAATTTGTCAAGTTCACACACCTGTAAGCAAGATGGGCACAGAGTGGGCATGGAAGGA  
ATGTCATGTGGTATCTTACAGGCTCTGCATGGCAGCCAGTGGTGGCTCATGGGTTTTTCAATTGCTGGGG  
TTTATAGCCTGTTTATGGAGTCCATAAAGGGGAGTTCTCCCTAACACGAAGTGCACCCCTGTTTAC  
ACCACCCAGGGCTGAGGCCCTGAGGCCACTTTTGTGGAGAGGCTAAGACCCGCTCCCTAGATGGCCCC  
TCGAGCTGGTGATGCGAAGAAGTGCACAAATGCTTCCCTAAGAGTTGTTCTTTTCGGTGGCATCAGGAAT  
TAAGGATAAGACTTAAGAGAAGTGGTGGACCCAGCAGATTTAGGAAGGCAGGGCTGTAGGTAGGGCATGT  
TTCTGATCAGGAACGTAATTGTGTGTCTGATGAAGAGGGTGTGAGTGGTGGCTACTGTTGGTACAAAT  
GATGCTCAGTGCTTGGTGTCAACACAGTATGAGGTAGCCTTGCCTGGAGCTGGAGGAGGGGAGGGGAGG  
GTGGAGGTAAATTAAGTGGTCACTGAGGAGCAAGTCTAGAGGCTGTGGAGAAGGACAATATACACCTCG  
AGAATCTTAAGTGAAGTGAAGACCTCTGCCCTTTCCCTTTAATGATTGCTCAGCACATAGCCATTTGCAG  
AACAGATCCTGTGTTTGTAGATTCCCTTATTGTGAATTTATCTGCTTGTCTAAAATTTATTTGTAACCCCA  
AAATCAATATTTGTTGTTTGTGAGTCAAGACAGAGTGGCAGAAATTTGAGTTGCCCTTTATGTAC  
ATGCCAGCTCTTGAAGAAACACACATAAAACAAGGTTTGTATTGATCAGCTGATGAAGATGTGGCCA  
GAGGCTTGACAGAACCTAACCTGTATTTCCCTATGAGTGAGGATTGAGTGTACAGTGACTTTACGG  
AACATAATTACGCCAAACAATGAGGATTGATTGCTATGTGTAGGCCATTGTAGGTGTGGTGGGAC

FIGURE 1, sheet 31 of 66

FIGURE 1, sheet 32 of 66



TTTGCCATTTTCTCAGACGAATGCTTTGTATCATTACACTAATTTGTTGACTTCATTTGCAGGCTTTACA  
TTTGGGCTTTGTAGAAATGAATGTTTGTCTGCTCTGTGAAAGCAGATTTTGAGACCTGCTTTCCCTTCCTC  
CAGGAGTGTCTTCTTACTGTGTCTCCCTTAATGTCTATGGCACTGTCTGAGAGTAAACATGATATA  
AATAAAGTGTCTTCTTATTTTGGCTTTAAAAATGTATTGTTGGGGTTGAGTGAAGAATTCACAGTAA  
TAGGCTAAGTAGTGTCTACATTCTATTCTGAATCTTATTGTGGGGTTAGAGAGTCTTTGAGAATTTG  
ATGAAACCAGGCTAGTCTTCTGGGAAAGGGCACCTGAACACAAATGCTTTGAGTACAATTTGAGAAGA  
GTTAAGAAGCTCTGCTTAAATGTATCTTCTTAAAAAGAACATTTTATCTTTAGTCAGCTAATCTCACAC  
TTGTGATTGATTATGACCACAGGTCTGTGTATACAAGTAAATGCAGCTCACAAAAGTCTGGTATCC  
AGTGCATCGATTATTTGGATAGATTTTCTGTAATCATTCTGAGTTTGATTAGAATTATATCCTTTACAGA  
TGGGGAGAAAAGCAATTCATTTGAAGTTATCTTAGTGCCAAGAGTCATGTGAAATGTCCCTTGCA  
TGTGGGCAATGAAAGATTTGCAGACGATATAAAACCCAGACTACCTCATAAAAGAGTTTGGGAATACAC  
TGAGCTTTGAGTGAAAGAGCTGCAGTGGCCTCCCTGGAGATGGGGAGCAAAACAGCTTAAAGGCCCTTA  
TCCTGAGGAAGAGACAAAATTCAGATGCACAATATTAAGCTTTGAAATGCAGACCACACTTCCTTTTAC  
TGCAACTTTGACTTGTCCCGCATCTCTACTTAAGGGCAGAAAAGGCCCTCAACACTCACCTCATTTGG  
AATGAAGATGGAGACTCTTTGCTGAAGCAACGATGGAGCAGTGACCTCTAATCAACTCGGTGGCCATA  
AAGAAAATCTTTGGTAAACATTTTCACTTCAGTTTCCCTCTGGGATCATTTGAATCCATGAAAAAATAA  
TTTTAAAGAAAGAGTTAAATACTTTGAAGTTAGTTATGTGGTTAAAAACACCTTCCTTTCTATTATCA  
ATCCAACAATTTGATACTGTAAACGCTAAAGTGAAGACGGATTCTCTTCAGATGGTCTCCTTAACGCC  
CAGGGCTTGAGATGTCTACCCATGAGGGGCACCAATGTAGAAAGCTGAGGCTTCATCTACTGATGAGC  
TTGAGCTTTGAGTTCCCTGAGGTTTGTGCTTTGGCAGAGAGGGGAGGAGGGGACTGGGATTGTGTGTGAG  
CTGTGCTGCCAACAGATGCAGGTTAGGAATGTGTTTCTGATCTTCCAATAAGAAAGGGGAAATGCCGA  
TGCTATCTCTTTGTTTAGGTAGAAAGTAAATGCTACTGGACTTAAATGGGCAACAGGGGCTTTGCC  
TGTTTCAATTTGCCATGGAGGGGCTGGGAATCCAGGTGCGGTGGCTCACACCTGTAATCCCAACACTTTGG  
GAGGCGAGGTGGGAGATCAGTTGAGTGCAGGAGTTTGAACACAGCTGGCCCAACATGGGCAACACCTG  
TCTCTATTAATAATAATAATAGCCAGGCATGGTGGTGTGTGCTTGAATCCAGCTACTCAGGAGGC  
TGAGGCATGAGAAATGGCTTGAACCTGGAAGGCAAGGTTGCAGTGAGCCGAGATTGGGCCACCGCACTCC  
AGCCTGGGTGACTGACAGAGTGAGACTCTGTCAAAAAAAGAGTAGAGTAACTGGGTATAAGATCCTTC  
CCTTTGCGTCCACCTCTCATGCCATGCTGCTTTGCGCTTCCCTACAATAGCTGAGGGTCAACGCTGAA  
TAATTTAATTTACACATACACGAGGGTCCAGAGCTAAGTTAATCTGTAAATAAGACTTAGAATAAAGG  
CCCTCTCCAATATTTTAAAAATAATAATTTTGTGTTTTTGGAAAGATTAAAGCATACCACTGAACTGCTTT  
GTTACAGAATTCAGTACAACAGAGTCTGGCTAATTTTGTGTTTTTAAATGAGAAACATCTGAGTTGTACAT  
ATCACAACAGCTTCAAGTTTCTGTACCAACCCCGCCCCCCCCCCCCCGCCCTGGGCCAAACAGTTAAAC  
CCAAAGCAAAGCATCACTTTGGATGTGAAAAAGTCTTAGAAAAATTAACCTACAAAACATCCCTATCAAG  
TCGGTAGTTTGGCATTTACTTTACATTAGTCAAAAGCTCCAGCTAAATCTAATTTTTTAAAAAATAA  
CGAAGTTTACATTATTCATACAGATTGGGCATTGTTAAAAATATGCACAAATAACCACATCCATGCAAT  
ACAATTTGCTTTAAAAATTTAAAGCAATATAAAAGAGCAGAGCTAGGTACTGAACAGAACATTTTGGTGTA  
TAACCGGCAGCTCAAAATTTGCCAGCTGATTGGAGTAAACTGATTCTAAGCGTATTAAATATGATTGATT  
GTTTCCATCAGCTAAGGGTGCCTATGAGTTTCTGAACCATTTCTAGGGTGGAATGTCTCGCTGCTTCT  
ATAATATATGTGATGGACCACTGCTCATTGACCATACCTACATTATAATAATGCTGTTTTACAAACAA  
ACCAGAAATTCACAAAGTCTTGCTCTTCAGGAAACTGACATTTCCAGAGATCCCTAAACTAATCACTA  
GTTCTGCCAAAATACCCGGGGCACCTGCCACACAGGTTCCCTGCTCCTGGGGAGGAACACAATCTGAAAG  
CTGCCCTGGGCTCCAGGAGCCCGTGTGGGTAAAGCCAGAAAGTCTGCACAGGTCCCGGACCTTGC  
CAACACTAAGTCACTCAGATTGGTCTGGGGCCACGTGCTGGGCACCCTTGGCAATCAGGCAGGTGGTGT  
GCACTGTGGCCAGCTATGCCCTTATGTGGGGGTGGCCATTGGTGACTCAGCATGGGGTAAAGGA  
CCGGGCAAAGTTGTTGGCTGAGTGCAGCTGTAGTCTTCTCGGAGGAGGGCAGCAGGCAGGCCAGGAGC  
AGCAGCAGCAGGAGGAGCAGCTGCAGGGGTAGGGCTGCCCGGACCACCTTGAGAGGAAGGAGCGCTGTG  
GCCGTGTGCTGCCGGGGACCTGCCAACAGAGGAGGTTGAGAGCTGATTGGGAGGCTCCACAGGCACAAC  
CCACTTATTGCTAAGCCCTGCTTATGTAAAGTAAAGAAATCCAAGCTGAGATTTAAATAGGGCCAA  
AGTTGGGGTTCAGTTTTCAGAGGAGAAAACAGCCCTTTCCAGACAAAAGAAAACAGATTTTGAAGGA  
CCTTGATAGTGGCATTGCAAGACTGAGTCAGTGGGAGTGTGAGCAGGGGAACGCAGTCTGTCTACGGT  
AAAGCCCGTACCTGCTCTGTCTCTCTCGCCTTCTGTAGTTCTCACTGCTCTGAACTGCTGGGTA  
AAGAAACTCCAGTTAGTTAAGTTGAAGACAGTTTAGTCTTATCAATGATAAAAAAAAAAAAAATCCTCCT  
TAAATTATATACCACCTTTATGTTGTGTACAGCCAACTTTGGAGACTAGAGTAATACAATTGAGATTA  
AACGTCACCTGAAGTAGGAAATAATTAGGTAACTACTCAGTTTCAGGGTCAAGTGTGTGAAGTTTTT  
AATGGCAAAATCAGGGAACCCCTTTAGCGACACTATAAGAGCTCTCATTACAACTACTGTGATCCCAA  
AGAAGAGTGCATAGAGGCAGACTGTAAGCCTCTCTATGGGTACGACAGACCTGTGCTGTCTGAAATGG  
CTAATGGGCTCTTGAATCCCAAGCTTCCCTCATCTTAGTGACTTTAAAAATAAACCAGTGAGGTTCTCA  
CAGAAGGAAGGGGCTTCTACCTTTGCTCGGGGAGCTGGCACGGATGTGACAGAGGCTGGTCCCCGAG  
TCTACCTCGTCGAAGCTGGGCAGGGGTGAGGCTGGGTCTGAAATTCAGACCCCAAGGTTGAGCACAGA  
AATGTGTTTTCATGATATTTCTCATGATATGCTCACCTCCCTACCTTAAATCAATCTTTTTTTGTTT  
TGTTTTGTTTTAGACAGTCTCACTGTGTACCCAGGCTGGAGTGCAGTGGCACAATCACAGGTCACTGCA  
GCCTCAACCTCCCAAATCAATCTTCTACCTCAGCCTCCTGAGTAGCTGGAATATAGGCATGCACCAC  
CACACCTGGTTTTGTATTTTTTTTTTTTTTTTTTTTGTGAGAGACGGGATTTACCATTGTTGCCAGGCT  
GGTCTCAAACTCTGGACTTAAAGTGATCCACTGCCTTGGCTCCCAAGTGTGGGATTATAGGCATT  
GCCACTGTGCCAGCCTTAAATCTTCTGAAGGGGCTCTTCTATTGCTCTCACTCCCAACAACAACAGA  
CTTTTTTGGACAAAAGGAATGTAACAAGGAAAGCAACCCATATTAATAACCAACCCATAGCACAGA  
GCTGGGGAGACTGAGTTTAGCAGCAGCAGTTTGTAGTAGTGGTGAGCTCATCAGGTCGGTGATGAGAT  
CATGTGGCCATCAAGAGAGTCTAGTTTTGGCTGCTTAGGAGAAAACAGACCTGCCCTAAGTCTGGTGAGG  
CCACAGTCTGGGTATTCCTTTTGTGTTTGTGAGTTGGATCCCATTTAAAGTAGGCCAGCTATGGTGGCTCAT  
GCCTGTAATGCCAGAACTTTGCATTGCTTGAAGTCAAGGTCAGGAGTTCAAGACCAGCTGGGCAGCATGGCAAGA  
ACCCCTCTCTACAAAAATACAAAAATAGCCACTTCCTTTAAAAAAGTTTAAAAATTGTCATCCCGCC

FIGURE 1, sheet 33 of 66

FIGURE 1, sheet 34 of 66

TTCTGGCGAATCGTATAGTTGGTTAATATCTAATGAATGTTCTCTTGAGCAAGGACTTAAATACCATACT  
 CTGCCTCTCTGGACGACTGCCAGTTACAGGCAGTACCTGACTGCTGCTCTGTGATACCGGCCAGTCCCCC  
 GTCTTCTGCTGTGGGTTGCCATTAGGACTCGCGGGCCTTCTTTGCCACCATTCCGTGCCTGGAGGTAAT  
 AGTAGCTTTCCCTAGAATGAGCCAGTTTAAAGTTACCATCTGTAGATATGAAGGATATCTGAAGAACA  
 CTGGATTCAATTCATATTAACAGTGAAGAAATGAGATGGGCCCTTTCCTTTGAAGGGTATCTTGCTAGG  
 AATACAGTGGTGGCTTTAGTGTCTAGGTAGCATTATAAGCTGGCAAAGCTGATGGCAGAAATAAGCCTC  
 AGCTAAGGCCAGGGAGAGGGAAGCAGATGAGATGTGAGTGGGAAGAAAAGGGTCTGTTTCAATTGG  
 CATGCTTTCCAAACACCCCTCAAATGATCCACACGAAACAAATCAGAACAATTTGTTGAGCTTACCAGACG  
 GTTACTGCGTTAGCACTTTGAATTTTCATAGTGTTTTACAGAATTTTAGTTATCCCTGTCACTCTGTAGA  
 GGTGGTTGGCATATTATCACAGAATCAGAAATGCACAGAGGATGAATCTGCCTCCAGGGGCATTCTGT  
 ACCAAGTGTATTCTTTACCCGCACATACTGACTCTTCTGTTATCACACAGCCGATTGGGCTGTTATCTC  
 GGGCTCTCCAAAATAAATGTGTCCCTTTTAGAAAAGCCCTGCTTCTTTGCTTTCTTCTGTCTGTAT  
 GGCCTATTTGTGCAGAATGAAATAATAAAAAAAACCTTCAGATTTGTGGTGATACATCTGGCTTCAG  
 ACACAACAAAAGGGTTGAGATTTTGAAACCGGCCAGGTGAGGAACACAGGCGTCATCACAGGAAGGGATA  
 GCCAAGCCACATGAGCCAAGGATGTAAGCAGAGGTGAGGGACTGCGGTCTTTCCCTGTCTTATTATTC  
 TTTTAAATAATGACACCTGCTTGTAAAGCAGGAAGTGTTCGAATTGACACAACACAGCCATTAT  
 CAGCTGACTTGGATTTGAGCATGCAAAGGCAGAAATCTCTCCAATGATGTAACAATATTCTCTCCTTAAT  
 TTCTCTCGCTGCTGCCCTAGGCTGCCCTCCCAGGAGCTGCCTAGCCAGAGCATGCCAAGAACTCAAGGCA  
 GCTGAGGGAAATGTAACTAAGAAGAAACAGCCATTGCTATAAACACAAACCAATACAGGAATAATAATC  
 AAGACCAATACAGGAATAATAATCACAGCACTTACTTCTGAGGACCTTCTTTTACCTTTATACACAAT  
 TCTTAACAACACTAGGTGAAATAGCTTTAGCCTCAGGTGAGAAAGGCTTACAGAAGCAAGGCCAAGTGC  
 CTGAGGTACCATGGCAATGGATTGGCAGGGCTAGGAATCAAATCCGTGTCCACTGCAGCACACCATCAAT  
 GATTTTTTTGGAATAGGATGTATGGACAAAAGGTTAACAATAACAAAGGCTTGAAGGTGGATGCAGTGGAC  
 CATGCTCTGTAATCCAGCGCTTTGGGAGGCTGAGGCAGGTGGATCATTGAGGTGAGGAGTTCAAGACCA  
 GCCTGGCCAACATGGTGAACCCCCATCTCTACTAAAAATACAAAAATTAGCCAGGCATGGTGGTGCACA  
 CCTGTAATCGCAGCTACTTGGGAGGCTGAGGCAGGAAATCACTTGAACCCAGGAGGCAGAGATGTCAGT  
 AAGTCAAGATCGTGCCAGTGCCTCAGCCTGGGTGACAGAATGAGACTCCGTCTCCACAACAACAACA  
 AAGACAAAGGCTTTGAGAGCTCAGGAGCAGTCAGGAAAGCCAGCACCTTGGCTTGTCTACTATTTCGACAG  
 ACACCTGACTCGACAGTAATAATGACTGTTACACACACCAACATACAGAAAGATGGTTTTTGGCCAGAA  
 CCTATCTCTAAGTCTAATCGGTTTTGCGGGGTTCTAATGAAGTATGGACAGCTCAACAGAGACACTGTC  
 ACCATAAGAAAACCAACTCAAATATGCTGGGGAATGAATACACGAGTTTACACCAAAATCTCTCTCT  
 CTTGCAAAATGTAAGTATGACTCACAGACATAGGCTGTACTCCAGTGAAGTTAAGACTTACATAGGGTGG  
 TTTATAAGGGGTGCTGGACGCAGGGGGAACAGGTGGAACATTCTGTCACTTCCATTGCTTGTAGTGA  
 TGCTCGGGACAGGAAGGGCTGTGGGAACATGCCACGAGTGGCCATCCGAAATGGATTACCTGAAACGA  
 AAGACAGCAAGCGACAGTCTATTCTCTCTACTGAACGGGTGACGGGTGACATGGCATCAGGTTACAGTA  
 TGAAATGAGTTCTGACGCTTCCCTTGCAAGGATGCAATGTTTGCAAAATGTCAATATGTCCAGAGAG  
 AATGAGATGAGTGCACACTCAGCAACACTGTGCCTTCACTAGATGGGTACACAACGGAGCACGACCA  
 CATGATTTGCTGTGGGATGAGTGGCGTTTTGGAGCCAGGGTCTCGAGTGGTAGGGACACTGAGTGGCAAG  
 GCCGGGTCTGGGGACCAAGATGGCAGAGGGCTCTCAGGAGTGAAGGGGAAGAGTGAACATCAAGATGGAC  
 TTGGGAACCAAGGCTCCTCAGGGCTCTCCCGACCCACCATGGCAGATAGGGATGGGGCTAAGGGTGA  
 GGATTAGAGCTGCAAAATCAAGGAAGGAGGTTTTTTCCTCTGTGGCAAATCATCAGCACCTTTTACC  
 GCCCAACCCCCACCCCTTTCCACCAGGGGATCCAGTAAAGCAAGGAACAGTTCCAAACCAAGCCAC  
 CATGAAGAAAGCTTGGCCCATGCCAAAGGACTTCAGTTAGATGGAGAAAAAATCATCAAAACAGGCACC  
 ATGAAATGAGTTCTCTGCACGCTTCCCTGCAAGGAGAGGGGTTGGCATCGAGACGGCTCTGCTTGGGA  
 TGGGGTTTTGTAAGGAGCACGAGTTATGGGTGAGTACGGCAGTGTAAATACACCATGACACAAGGACCA  
 AGGCGCATGGTGTCCACAGAAGGCAGAGGTAGACACGACATGGGAGCGAGGTTGAGGATGCAGTGTGCC  
 CACAGAGTGTGCTGATGTTGACACATGCATGGGCGGGGGCTACCAGAAGACGCTTTCAAAGTTTTTGTG  
 GTCAATTTAAGATATGCCCTCAGGATTTTCAGGGATTTCTACATCTGAAAAAGAACAATGTCAATTGGCTC  
 ACTGGAGGTGCCTGAAGATTAATGCCCAAGTATTAACACACAGTAGAAACATTGTCACTGGAAGGAGAA  
 AACTACCTTTATTTTTTAAATTAAGGATTTTGAAAACAGAAAGATTTTTTTTCCAGCCAACTCCT  
 GACTGTCCAAAGCAGGACACTGGGTATCAAAGGGAGAAGCTCAGTCTGCAGACACTCTGAGAACTCAAC  
 TGAAGGGGAGGTAGGCACAGTGGCTCATGTCTGCAATCTCAGTACTTGGGAGGCTGAGGCGGGAGGAC  
 TTCTTGAGCCAGGAGTTCAAGACCAGCTCTGGCAACATAGCAAGACCTTGTCTTACAAAAAATTTAAA  
 AACTAGCTGGGTGTGGTGGCGTACCTATAGTCCAGCTACTCAGGAGGCTGAGGTGGAAGGATTGCTT  
 GAGCCCTGGAGGTTGAGGCTGCAATGAGCCGTGGTCCGACCACTGCACCTCAGCCTGGGTGACAGTGTGA  
 GACCCTGTATCAAAAAAATCACTGATGAGTCTCCAGACAGCCAGAGCCATCACTGAGTAACCTTAGT  
 GTCTGAATGTGAATTTTCAATTTTTTCCCCCTTTTCACTCCACCTGTGATGAGAGTGAAGCAATTTCTCAGG  
 TAAGTTAAGAGATGGGCAGGATAGAGCACAGGAACACAGAAGTCAGGGTCGGCCACAAGATGGACTCT  
 TGGTCATTGAGAGCTGGCGGTGTGCTAAGGGGCTAAAAACATAGCCAAACGGGTCACTTTCCAGGGTGC  
 TGGGAAGCCAGCTGTTTACCTGACAGTGCCTGTAGTATGGGCCCTCTCGTCTCTCTGAGAGGAGGA  
 GCCCCCACGCTCGCTGTGTGGTCCCACTCCAGGGGATGGAGTCCACGCTGACAGGGGTCTCGCAGCCA  
 GACCGCTCGTGGCTGGGGCCACTAGATGACACAGGGACTGAGGAGATGACGGTTCCTCGCTCTCTCCCC  
 GTTTACGCCAAGAAATCAGTCTGGATTTCTCTGGGGTCTTCCATGTCTGTTTCACTCTCAGAGGCTCCTT  
 TTCACTTCCAAAGCCCTAAACCCACAGTATCCAGTTGTTAGAAATTAATCAACTCAGGCTTCTGCAATTA  
 GAAGAGCATGAGAAGTCTGCCTATCTAGCAGTTTCCAAAAATACTGCCAATAGTATTTCTAAGGCAGCT  
 TTAAGAAAGATCAGGTTCCAGGTCCTGTTTCTGGTTATTCAGTTTAGACAATCTGGAGTGGGGCTAAA  
 ATCTGTTATTTTCCAAACCTCCAGCTATTTTTTCTTAGGAAAAAAGCTGAAGTTTGATAATCTAAGT  
 TAAACACTTTTATCTAGGAGATAAGGAAATGGTGGCCAAAGTTTCAATTGATGGTTAATGGCAGGTTCCCTC  
 CAAGATCAGACTATTTTTGAAAAGGACATTTGAATGTTCTGGGTAAAGACTCAAACCTCAACCCAGATGCA  
 CCAGGTTCTTTCTTTCTATCCTCAACTTAATGCTCAGTGTCTGTATTCTGCTTGTGTCAACGCTCT  
 CTTTCAGTCTAAGAAAAATGACTCTAAGTGGCTGTACTTAAAAATGAGAAATGTGGGGTAATTTTTGAG

FIGURE 1, sheet 35 of 66

GCTGTGTCTGATGAAATAACTACATTTGAATGTGGCCAGTTGGAGACACAAAAAGAGTGGCCAG  
TCGTATCGGTCAATGGTTGTCTTCAAGCTTCAGGCACACAAAGGCAGTACGCTTTGAACAGTGGCCCTTA  
ATCCACCTGAACCTCCCAAAAGGGCCTTTCTGTCTGGGAAACATCAAGTTGCTTTTGAAACTCTTGTG  
TTTTCTCTTCCAAAGGTGAGAACAAAGCATCAGAAAGGCACAAATACTAAAAGCTCCAGCCTCTAAGAAA  
GAGGGAAGGGCAAAATACATTCCTAAGTTACTAATGTAATAAAAGCCAGAAGAGTTCTTCAAGAATTCTAG  
GGGTAGTGACGCATGCCAGACAAGCCAGCCCTGAGGAATACTTAAAGCGGACTCGTGGAGCATGCGCCT  
CAGAAGTGCCATGCTTTCCACTGGGGAATGGGAAGTTGTAAGTTACTGTGGCTCTATATTAATAAAAGTG  
GAAATTAATAATGTTTTGATATAGCCCTTTCTTTTCAACCAAAAAATAAACCATTAATTAACCATTAAGA  
CAGGTCCCTAATTTCTTTAAAAATTTGGTCTCACGTAAGCTCTGAGCAGCCAGGTGCCATTTCTAGGCA  
GCAGTGCCCGTACCGGAGTGACAGGAGGTGAGCCGCCGTGGAACCGGGAGACCTTCCAAACACCTCCTG  
CAGTAGCGGTGGAGTTCCTCCAGCTCATCTCAATCAGCACAGCATCCAGGGGCTCGCTCTTCTGAATC  
AGCTGCTCCCAACACAAATGAGCTGATCAATCTTGTGGTATTAAATGTAATTTCTGTGGAAAGCCCT  
GTTGAGAGAGGAGAAAGAAAGGATTTCAAAGAAAGTTACCTGAGCTTCCACTGCCTGTTTCTTCTAACA  
GGGCCATAGAAAAGCATCCAAATGTCATTATTGTTGTTTCTTTCACCTACTACTCTAGCTTTAGTTTTT  
AACTAAGTGACAATGACATTTTAAAGATTTTAAAGTATTGTCATATTTCCCTTCACGGGCACTGGCTTT  
TCCAATTAATAATTTTAAAGTTTGACACGGGTGGACATTTACTGTTATTAGGTGTGAGAGAAAGAA  
TTGCCATGGCAAACTTGTGGGAACAGAACATTTCCATAATAAGCCACGAATGGGCATTTGCTTTTGC  
TGACACAATAATTTCACTGGTGCTGTTATACTAGGGAAGGCAAAATTTCCATTTCTCAACCTCTTCCAAA  
ATCTGGCCAAGGAGAGAATTACAGTGAGATTAGCCTGTCTATACAGATATCAGAAACATGGGAGAGCGGA  
CCCTGCTTCTTGGCCCACTGGTGACACCCACTCTCTGGACCGTAAAGAACAGTATCCTTGACAGTGAT  
AATCTGGTAGTACACAGGTGGGATGTAGCCTGGCTGCTTTAAGAATTCTGAAATTTGCTCTCAGAGTATC  
GTGTGAAATTTGCACTTGCCAGCTCTCCACGCAAGGTGTGTCTTTTGAGAAGAGCTAGGGAGAGCAG  
CAGCCCTCACATTCAGTTGGCGCATCTTGTATCGGCGTCACTCTCTGAGAAGTGCTCCACGTTGGTCAG  
CTGCAAGTCCATCTGTGAGCCACACAGAAATGCTCTCCTGGTGGCTTCAAAATTTCTTCCCTGTTG  
GTGAAATGCTGAAAAGTGGGAGGAAATCACATTTCTACTGACCACGGAACAAGAGTTCAGACAGACAG  
CAAGGCCACCTTCCGGCCACAAGAAAAGGTACCCAGAATACTCAGGGAGAAATCTGCCTTAGGGTACCC  
AGAAAGCCCCAGAACACTATGTTGTTGAGAGGCTGGGGTCTGGTCTGCTGCTTTGTGAGACCAACAAGC  
CCCTCAACTTCTCTGAGCCCCAGCTTCTACGCTGGCAAGTCCGGGAGAGAGTGGGAATGTTGATTATG  
TCTCTGAGGTCTTAAAGCATTTGAAATTTCTAAATTTCTCTAGTCCAAATCAGTGATTTTCTCTGTCTT  
TGAAAGAGCCCCCTGAGGGGCCAGGCCAGCCCTTCTGCCTGTTTTACACATTGGCCTTCTGCAGCTTTTGC  
TTGACGGAAGGATTTAGTAGCTTCAAGATGGAAGCCCTTGATATCAGGATTGAGGCCAGCCTGGTGCC  
CCTTCTGCCTTCACTGATAGAAATCTGAATGTGTCTTCCAGAGAAAGAAAGACTCAGAGCAGTTGTATCA  
TCTCCAATTAAGGATGCCTCTCAGGTTACTGCTTACAGATAGGCAGCTGATGTTGAGATCAGTATAGCT  
TCAGTGCCAAACGAGGAGATTAAGCCACAGCCAGATCGGCAGGAGATAATTAATGCAAGAGGCCGGGCA  
TGGTGGCTCACACCCACGATCCCAGCACTTTGGGAGGCCAAGGTGGAAGATTACTTGAGGCCAGGAGTTT  
GAGCCAGCTTGGGCAACATAGTGAGACCCCAATTTCCACAAAAATTAATAACAGCCAGGCACAGTGATG  
ACGCCGTAATCTAGTTACTCAGGAGGCTGAGGCAGGAGGATCCCTTGAGCCTAGGAGTTTGGGCTGC  
AGTGAGCTATGATCTCACCCTGCACTCCAGCCTGGGCAACAGAGTGAGACCTGTCAAGAAAGAGAAA  
GAGAGAAGAGAGAGAAAGAAAGACGGAGAGACAGGAAAGGAGAGAGACAGGAAGGGAGAGAGAGACAG  
AAAGAAATGCAAGGGAGTTGTCTAGGTTACTAGAAAAGCCAAATGTCTTCTGAGAAGGAGGGAGGGGAG  
AGAGAGAGAAAAGAAAGGAAGAAAAGAAAGAAAGCCAGATTTACATCTTTCTAGAATGGGTTCACCAT  
GCTCTGCCCTGAGAACAGACGCAGAAATTAATAATGTTGCTGTAGTCCCTGCTGTGACAGTCTCTTCA  
GTTTATAACTGGATTACACAGGTTTACACAGCACATCTTCTGAATGACAGAAATCTAAGGTGAATATTT  
ACCTTCAAAAACCAACCTTTGTGTGCTGTGAAATTCAGAGAATAACACAGTCCCAACCCCTCAGTGC  
AGACAGGGGCTCTTGCACTTACAGTGCTTGTCCATCTCTCTCAGTGCGAGAGCTGGGGGGGCTCCATAA  
AAACAGACAGATGGGCAAGCGGGGCTCCTTCCAGGGGCCACGTGTTGCCCTTTCCAGACCCAGCGAAG  
CGGCGCCCTGGACTCTGAGCTAACATGCACACCACACGGGTTACAGAAGTTGTAAGAAAGAGCTGTGCGT  
TGGAATACCGTAACTCTCATCAACAGGCCCTGCCTAAGAAGCCACATGCAAAATCCCTTTTAAAAACG  
AACGTTGGCAGCTTTGGGCTCTTGTGTTGGAGGACTGTTAAACAGCTCAGGCCTGAAGTGAACCTT  
CTACCTGCTGCTTGTGTCACAAAGCCTGCCATTGCGTATCGTGCTTATGTCTCTGGAATCTTACACC  
CGAGCCAGGTGCAGAGGAGCTCACCTGAGTCTCCGAGGACGGCTGTGACCCGCTCTGAAGTTGTCT  
CAGGAACTGGTTGCGCTCGTGGACCATCTGCTTACGCTGTGGCGGTGTCTGTGCGGTTTCCCGGCCA  
GCCGCCGCTACTGCTTGTGATGAGCTCCAGCTGAGTGAGCCGCTCATGAATCTGCCGCTGAAAGGCTG  
CATCATATGGGAGGGGTGAGAGCAAAGCATGCAGAGTGCCAGGACGCCCTCCTTCCCTTCTACATCCA  
AGCGACCTGCTGCCAGGGGTTTATCCCCAACTGCAATGGCAGCAGAGGGCCTAATTCACCACTCTGAT  
GCCAGCTACAGAACAGGCTTTTCAAGTTTACATAGCAGCTGGAGTACATCAGCAATGTCTTGCAAGC  
TGCTCTCAGCAGCTGGGGGAGGCTGTGGTTTAGGCAGCCCTTGCCAGAGGTGAGGGGAAGCTGGCTACTT  
AGAGGAAGTCATTTAGCAGCCCCAGGCTCGCTGCAGGCTTGTTATGATCAGGAGACCGGGATGGAGA  
AGGTGTTTACCTCAAACCTCTTCACTCTCTTGGCACTCGTGTACAACACCTCTGAGGAATTTGGGCA  
GGCTGAGCTTCCCTCAGCTGACTTGAGCGTCCTCAAAGCGAGAATAGTCTGTCTAAAAACTTCTGCCAC  
AGGCGCCACGCTCTCTCGATTCTGATGGGAGCAAAGCAACTTAACACAAGCCATCCCTCCAAGCCTGTG  
CTTTTGCATCTCTTTATCCCTGACACCCGCACGGTTTGTGGGGAGACCTGTTACCCCTTCTGGGA  
ATAAAGAGGGACGCCACTTCTTGTCTGTGCTCTCTGCTGGGAGCGCCAAGCAGCTCAGAGCTCTGTC  
TTCAACAGGTTAAAAAACAGGAGACAGGCTGCTTCACTACTGCCAGTAGGTCAACGGAAGCACA  
GCGGCCAGTCCACAGCCACACCCACACAGGACAGCTGGGGAGAGACATTACTCGGTTACATTTTCTT  
GAATAAATCCTTTGATAAGCGTTGGGCTTCTCTGCCAATACCTGGCGCATTTCTAAGTGAAATGAACAG  
AATAGTTACTGTGAATGAGGTGAGAAGGTTGATTGAGTTGCGCTGACCACGCTGAAGGCATTTGGGGGA  
GCTTAGTTTCTTACTTCTATGCGCCGCTCCATGGACATGGCACAATGTTCTCCAGCGTCTGTCCAGCTC  
CTGGTGGTCTGCTGGATCGAGTCACTCGGTCTCATTGTCACAGGCATCGGAGTCTGTCAGTAGGACGT  
CACAGATGTTAAACACGGACTCCACCCCTGCGCTGTGTTGTTCAATATCTCGCTGTAGATCCTGTGATTA  
CAACAGAGTAAGAAACCTCTTGAGATGTTGGTGGCAGCAGGAGGCTCAGCATCAAAGGACCTCCGTTCTT

FIGURE 1, sheet 36 of 66

CCCTCCCTTCTCCAGCTCAGGGGATACTTCCCTGGGTGGATTTCACCACATGAACCTGGCAGTACACATG  
GAATCCCTCTCATCTTTGTGCTACCCCTTGCTGCTGCAGACACCTGACACAAAGTTTAAACACCTGGAAACAT  
CTAGGACCTTATCGCTGAACCATGTGAGGGGTGCCAGGTGATGGGTGCTCTTACGCACTGACAGGTGG  
CGCAATTACTGTTGAGAGCCCATGCCCCACAGACTTCGGGTATGCATGGGATCTACTCCATACACACCA  
ACCCCAAAGGGCTCCAGTTTAGACTTGGTTTCAGGGAGGTCTTTAGAAACTGAGTCTCTTACGACGGAAC  
TCTCAATCTTTTATCAGTACCCGAACCTTCTCAAACACACACCAAAATTTGCATGTCAGCAGTGTGGATGCC  
CACAGCTTCCCCGTGAGCCCATCAAGGGCTTCATGAGCCCAAGGGAGAATTTGGCAGACAGACCTTGG  
CCTCCCAACTGATAAAGTCACGCCAAAGCTGTGGTGGCTTGAGAGAGGTGGGGTCTCTGGAGTCTTGT  
CCTTTGATGATGATAGTGATGCAGTTCCCCAATTTGGGAAAAATAACATTTATGAAGAGAAAAATGCATGG  
TCATAGGAAAAAATCGAAAAACCTCTTACGAAATTAACATGGCATTTTTAGTCATCATCAGATAATATTT  
CTGCTGTACCCCATGGTGGGCTGCGGGAGTGAGAGAGATAAGGAACCTGTTTGGCCATTCTGGAAGAG  
TAGGCATCCCTGATGTCCAATTTGTGTAGCAATGACATGAGACCAGACGTTAATTTAATATCCAAA  
TTACATTGTGAGAAAGCAAAACACTAAGTCAAATTTCTATCTAATTTATTGATAATATACCAATTTCTAA  
ATCTACACTACTTTTAAACCACTATTAACTAGACTTAATCCAGTTCCCGAGCATCAACAAATTTCACTTAAT  
AAGAGGACTGTACTATAAATGGTAGCTGTACCATTACAGAAAGGCAATATAAGTTTCATTCAGGTCTA  
CTTTCATATTTAAATTAACTTGAGATTACTACTATATTACTAGATGGGACCACTTTTTCATCATCTCTTT  
TTTTTTTTTTTTGAGACAAGGGTTTCACTCTGTTATAGTGGTGCATCTTGGCTCACGGAAACCTCTACC  
TCCGGGCTCAAGTGATCCTCCACATCAGCGTCCCAAGCAGCTGGCCACCACATCAGCTAATTTTTTGT  
ATTTTGGTAGAGATGGGTTTACCATTGTTGTCCAGGCTGGCTCAAATCTGAGCTCAAGTGATCCA  
CCCTCCTTGGCCTCCAAAGTGCTGGGATTACGGGGTGAGCCACCAGCCGACCCCTATTCTTCTTACT  
TTCTTTCATATAAATACACAATTCGGATCATTGAGTGTTTAGGTTGATATAAGAAAAATAAATGCTAACCC  
CGCCAACTGAATTTTAAATCAGGCAGTTTCCCTAAGCATGATCCCGAGTACAATGAACACCCAGGTTAT  
ATTCAGAAGAGATGTTGTTTTCCACTTGGCCACCTGTGTGCACTGTGAAGATGTGCAGGGTGATTTCTT  
TAAAGCTCTGCAGTGTGGGTAGAATGCCTGATGTCTCGAATGGTGGGAGTCTCCCTGGAGTCAATTTGA  
GGACTAAGTTTAAAGTTATTACATCTAAATAAAATTCAGTTTAAAGAACTCTTACCGGTTACAGAACT  
GTCTGGGCGCTTCTAAATTAGAAGATACATATCCCATGTAAATATAAATAATAGGAACCTTACCTT  
AATACCTGGTATTAATAATAATACTAATCATTAATACTGAAATGGCCATGACCTATCTTGGCTCTT  
AGGTGGGTAAAGTCTAGTTGAAAAGCCGAGAGAAGTTCTAGTTTATGACAATATGAATGCTCTGTATTT  
TAATAAACTCTGCAATTATCCTACATTATTTATTAGCTTACATTGAATCAATGGCTAAAGAAAAGTGA  
TTAATTAATTTAGGGTAAATGGCCGTGAAGAAATGAACCTTACAATAATTTATAAAAGACCATCAACATCTTG  
TTATAAAAAAAGGAGCCCAACATTTTCAAACCTTTTCAAACCAATTTTCAAATAATTTTAAAAAC  
ATGTAAAACACCACACAATGGCCTACTAGTTACCTTGTAACAAAAAATAAATAAAGTGATAGACTAC  
ATTTTAAATGCAGACCATTTAAGTGCTAGACAAGAACATTTTGAAGCTGAAATAATCTTACCGCTAGT  
AACCACGGAGACCTAAGTCTGCACAAGAATCAGGTTTGAAGAACTGTCCAAACCTAGAGAAAAAGTGGAT  
TTAAGAAACAACATAAACAATAGAAAGACTTTGCCAACAGTTCTAACAGGCTCTGTTCTATTTCGTT  
TTTCTGCCCCCTGGGCAGGTGACACATAACCTGAGGTTGGGGAGGAACCTGGGGGCCAGGGGGTACAGAG  
CAAGAGGAGAAGGGGAGACATGAACTGGAGAAGAGAATGCAGCCAGAAGAATGAGAATAAAAAGGAACC  
AAAAACAGAAGTTAAGGTGGCTGAGGAGAAGAAAAACAGGCTGAAAGAGACAAAATCATATAGCTGTGA  
AGCCCCAGTGGCCAGTCTCTGAATGTCTGTGGTGGGGGCTGGGTAGCAAGTGGGACAGGATGGTATT  
GGGATGGTTCAGGGGGTTTGGGTGAAGCTCAACTGGCCACGGCAGGGGCTATTAATTAGCCAGTGGAA  
GGGTAACTAACACAACCTCCAAGCCACCATTCTGGCACCACACAGAGAAACAAGCAACCAACCAATGAACA  
AACTAGGACAGGGATCTTAAAGATTCAATGGAAGTGGTTGCTGATTAAAGTCAACAAAATGGCCACTAC  
TTCTGTGCAATTTTAAAGATGATATATTCGTAGGAATAACCCCAATCTTACTATCATTAAGGTGGTTCT  
ATATAAGAAAGGTGAAACAGAAAGGACTCCTATAGGGTCTGACCCCTCCCCAACCCAGGTATATTACAGTG  
AGGATCCGGGGACATCATGGCTCTTAGCTACTTTTGGGGGCTGAGGGCTTTTGCAGAAGGCAATACTAGG  
TGATGCCATGTTTTAGGCTTATTTTGGGAAGCAATTAATTTATTTATTTAGTTTGAAGTGAACAT  
AGGTAAGGTGGTTGTTTTTAAACCCAGACAAAATGGTCACTAGGTAAAGTTTAAAGAGTGGCCCAT  
ACATAAATCTTTTGTGTACACATTTGTTTCCAGTGTTTTGGATGGGGTACTTAAGGTCTGAGTTTAGCA  
TAATATAAACACACTGTAACATTCTTTTTTAAACAAAATACGTAAAGTATCCTGAGATCATCTGTGGTA  
GGCAGAATAATGCAATGACACACCCCTCCCAACAAAGACATCCAGATCCTAATCTCTGGAATCTGT  
GAATATGTTAGATTACAGCGCAAGGAGAAATACGGTTGCTAATCAGCTGACCTTGAATAGGAGAGATA  
TCCTGGATTATCAGGGTGGGCCACTGTAATCCTAAGGGTCTTAAACAGCAGAAGAGGAGTCAGCTAGAG  
GGAGATGTGACTGAAGAGACAGACACAGAGAGATGCAATGTTGACGGCGTTGAAGGCAGAAGAGGGCA  
CTTGAGCCCAAGCAATGTGGGTGGCTCTAAAAACCCAGGAAAGCAAAAAATGGATTTCTCCCCAGACCT  
CCGAGAAGGAGCGTAATCTGATGCACCCCTGATCTTAGCCGAGTGAGATCATTAGATCTCTAAGCTT  
CCAGATATATAGTAAATTTGCGTTTTTAAAGCTGCTAAATCTGTAATTTGTTACAGCAGTAGTAGAAAACT  
AACACCAAGTTGATCTTCTTTTACAATAATGGTAGTCTTGAACACCAATCTCAATTTTTTTTTTTTTTAA  
GTAACCAAGGTAAGAAATGTCATCAAGGTAGTGTGTAATTTTAAAGACAGAAATTTTCAAATCAACCA  
GATTGAAATTTATGTGCCATTGTAGGATGGGAAGAAATAGGCTTAAGAGAATAGCAGTGGCTCCAACTGT  
ATGCTTTTGGGAACAAATTTCTGCAATTTAATGTTCTGTGCACACTTCGGATTTATAAAAAATTAACACA  
CAATCAACAGCCCCCTGCAAAATTTAGCCAGCCATTCTTTAAGGGGAAAGCATCTGACAGCTTCCATATAA  
TCTACCTTAAAAAATCTCACCATCAGGGTAAATTTGTTATTGCAAGGAGATCTGGCTTTTACAGCTGTGTT  
TAAGACACTCACTTAGTGGATCACACTTGTAAGTAAACTGATGTGTTTCACTAGTGTGATCTCCAATGA  
GAGACGCATTAAAACTCTGTGAATGTCCATTAAAAATCCATAATACTTATATCAATATTTCTTTTCTGCAC  
AAAGCAAAAGACAGCCCTAGATGACCTCCATGAAAAAGACATGCTTAAAGTTCCAAGCTAAGTGGAAAA  
ACCAAGTATTTTTAATTTGTAGCATTAATAATCATATCAGCTTTGAAAGCCAGATAACAGGTATCTTTTAA  
ACAGTAATTTGTAATAGCATTAGAAAAGTCAAGAGCAGGAGGGCCAGGCATGGTGGCGCTTCCCTCGAG  
TGCCATCTACTCAGGAGGCTGGGGTGGGAGGATCACTTGAGCCCAAGATTAAGAGACCAGCCGGGCAAT  
ATAGTGAGACTCCATCTCTTTAAAAAAATGTCAACAGTAGTATCAAAATATAAATCTGCTGAAAAAGGTTT  
ACCCCAATCCGGTCTCAAGCACTGTGGTATGTGGTGTGGTGGAGGCTTAAACTGAGAAAAACGTA  
TTCAAGCTGAGAACTCATAGCTGCTTCTATGGTTGAAACAGAAATCTGCCCATAGGCTGTGAGAAAAAGG

GAACAAAAGCTAAAGAAAGAATAAGATAAACTTAGCTATTTAAAAAAAAGTAAAGACATATCCAGGCAT  
TACAAGTGAGAAATGAGCATGTGGCCATGAGACCAGGGAAGGCAGGAAAGTGGATTTCGATAAACCAAGTGAC  
ATCAAAGAGGACCTGTAGGTGGGTACAAATGAGAAACACTGGCAGAACTCAGCAGCTTCAAACCTGCCCA  
ATTTCCAGGGTTGGCTCAGAGCATGCATATCTGATAACAAAATGCACAGAGCATTGCAGCTCTTAAGAG  
GCTTCTTAACTATTGGTCCAAGCATGTTCCTTATCACACCTTTCTTGTTTTAAATTTTAAAAAAGCT  
GTACCAGACACACAGAAATATAATCCCATAAAAACCTTCTTGGTTAGAAAAGTGTCTTTCTTTCAATTC  
ATTGCCTTTCAAACCTATATTAACAAAACACAAAGATCAGTTAAAAAAGACATAATTAAAAAATC  
TCATTAACCACCAAGATTAAGGTTTGCATCTTAAACAGTATTACACAGTTTACAAAAAGCTACATGAA  
TGTGGGAGGGAGCACTCAAGAGACAGATATAAGAACATGGAAAGGTGGTCAGTTTTCTCTGGAAAAAGCA  
AACCAATGTTATGGAATGTGAGCAGTGAAAAACATAGATATACGGGGAAGGCCTCAGTCAGTGCATAT  
CGCGGACACCGTACTCTTGCAAGAGCTCATTTCTGATTGTCCACCTGCTGCTCAGCGAGCCTCTTCTGG  
ATCTCTTGATCATCGCAGACATCATAAACAACAGGCTTGGAAAGCTCAGACTCAATTCGAGCCAACAGG  
TGCGAAGGTTGCTCATGTTTTTGTCCAACCTGCTGAATAAAAGCAAAGGTCTCCTTCAGCTTCTTCACCT  
ACACATATTTGCAAGAAAACAAAACGAAACAAAAAACCAGTGATGGAACAAAAGCCCAATACCTTA  
GTGGTGAAGAATGTGCCAGTAAGAGCATTGCAGGGTAAAAAAGAATCTATTTTGTCTTGATTTTATATC  
AGAACAACCTCTCATGTCACAGATACAGAGTTCTCAGAGAATATGTGAAGCTTTCAGAGGCTGTGGCCT  
GTTGATTTTCAAAGGACTGAGAGTTAATCCACCCATGCAATGGAAGTCTATCATTTCCAGAGTGAGA  
GCCCCCTGAGACCCAGTTCTCTTCTGGGGCTCCAGAGGTGAGAAGATATGCCATTTTCTTAAAGTAA  
AATAACCACTCTGACTTCTGCCAGTTTCTGCCGTGGGTATGCTTGAGACTGCAGCAGCCGGTGATCTA  
CCCTGGGAGATTAAGATGTTTACACGCCCTGGTTCACTTGGTGGTATTTGGTCCACAGGCCTCTCATGGG  
ACCTCTCTCTGAGTAAGCAGAGAACATGTGCCAAGCCCTACCGCTTCAGTATGAGGGGTTCAACCCAGC  
CGTATACATTGAACCAAGCCCATGCGGGTAGATTATGGGCATCTCTGTCCGTCTAAAGGGAGGGGGCAA  
AGGAAATCTGCACGCAAGCGCAGTTCTAAATGTGATCTCCCTCGCCAGTCTGCCCTCAGCTCCCATCCGGC  
CCAACCTCGGAGATGAGCAGATTGAAAGCACACGCACTGGCATGGATGAGTACAACCTTGGCGTGACGTCACAT  
GCTGTCAAGGGGACGTGATGTAGCTGTTGGGGGAAAACAATCTTTTCTGACATATATACTAAAAATAAAA  
TGCTCCAATAAACCGCTTCTCTTAAAGTCTTAAAGCAGAGCGAGGTGAGCCAGGATCTGTCTGGCGTTC  
TGTGGGATTTGTAGTTAATTTAGACATTTAAAGTAATGGCTCCAATGGAAGTTCCTCACTTATCAATA  
CTTACGTTGGGAGATGCTGTGAGAACTGCACCCCATAGCTGGGAGCACTAGAGAGATAAATGGGTGCACT  
GACCCTAAGTCTCAGGAAGCATTGTGCTCCATGCCACCATCACCTCTTACTTGACCGAACACCTCTCTCT  
CAGCCCCCTAGACTTCTGCCCCACCTTTGGTTCTGTAGCCAAAGTGTAAGTAAGTTCTAGAAGGCAAGTCT  
TGATCCACGCTCAAAGCCTTCAATAGTCCCTGCCCTACCTGAAAAACCGGTTCAAGCCCCCTTGATCTCTG  
TACCTCAAGCATTCAGGGGCCACTCTGCCCTCAACCTTGCACTCTCTCAGACACTGTGCACCCACACAGGA  
CAGGGAGTGCCATGGCCAGGCTGCAGCCGGCCAGTTTCCGCCGCACTCACAGCACCTCCACAGGGCCCTG  
GTGGGCAGGAAGCTCTCCACAAATGCTTGGTGAATGGACAAATACGGACAGGCACTTCCATGGGACTGAC  
TTCTAGTTCCATTACCAGCTACTTTTAAAGATTTAGTGAAGTCTTTTCACTCAGCCCCCTTATTTCAAG  
TACACCTTGGGAGATGCTTAAAGTTCAGGGAAGTGGTAGCATCGGCTGAGGTGAGGGCCGGAATCCAGGA  
GGCAAGCAGACCTGGGCCCCAAGTTCCATTCTCCCATCTAAGAGCTCTGCACCCGCAATGTACCTAACCG  
CTGACTCTGAGTTTCTTATGATCTGTAAATATATCCACCTTGCAAGGTGGCGGTGAGCTTGAATAAGAG  
GCTGCATGTAAAGTCAGCTGCACAGAGTGAATGCTGGACCACATGATGCTACAATCACGCTTTATTTACA  
AGGCATTAAGCAATTAACACACCGGAAGAATTCACCTGATGTTTTTATTCTCAAGGGCAAGCTTGAAGAAGGACATG  
TGGTCTGGAGGTGGAAGAACACAGACTCTGTGGTCAGGGCCTGGGTTTGGCTCTGGCCATGTTAATGC  
CATCTATAAAATGTTGTTAACAGTAGTACCTTCCCTTCACTGGGTAGCTGAGGGGACTGAATGAGATATAA  
CATGTGAAGGCGAATGCCTCGGAGATAAATGCCAGCAACTTACAGTTGTGATAAGTTTCAAGGAGCC  
ATGTTTTCTCAAATTACATTTTACTGCAAAACACCAAGGATACGTTTCCCTTCAAAGCCACAGATGATTT  
ATTAAGAAAGAAAGTAACAGAATCCAGGACCAGGCCTGGATACAGCTGTAACTAGATCTGCCTTCATTC  
CTATGGCTTCAGAGGTACACCTCCTCACCCAGTATCTTGCCACCTTGATTGCCCTGGTTCCAAAAAGA  
ACACTCCAGACAACCTACAGGGTAGCTGAGAACCCTGGCACTGTGGGACAAGGAGTCTCCAGGAGCTT  
CCTGAGGGAGTCCCTCTCGGAAGGCTCTGCTGGAGAAGAGGCCAGCCACGAGAGCTTCCCGGGGTGG  
GGGAAGGGCTCAGGCTCGTGACCTCTGCACAGCTCTCCTGCCCTCCCCACTTCTCCCTCTTCCAGAATG  
AAATCTCCACGGCCTTCTATAGCCCTGACCTTATCCACCTAAGAACTCTCAGCCTCTTTCTTATTT  
TGAAAGAAGAGGGCTAGAATCCAAGTATTTATTTATATATATTTTCTTTTCTTCTGTTTCTCTCTCTC  
TAACCTTAAGCAATTAACACACCGGAAGAATTCACCTGGTTAATGAAAGGAGCTAACTAGCAACACAC  
AGCCTGGGTACAGATCCACAGGACTGTGGTGATCTTGAAGTGTAACTTGGGGGTAGGTGTGCAACAC  
GCAGAGGGGGTATGGAGAAGGTGGGGGAATAATTGCTTGGTTTCCCCAGGGCTGTGGTATCCAAAATGG  
GGTGCTCAGAACAAACCAATGGGGGTAGGAATAAAATATGAGACTGTCTACTGTCTATCCCATCTTTTA  
AAATTTCTACAATGTGTATGCTTTAAATTTATAAACTTAATTTATAAAATAAAACATCTATATCCACGC  
TGATGGCCACATGTGCTAGGCCTGTTGTGCTCCATGTTAGCAACTCATGTACTTTTTTTTTTTTTTTTTT  
TTTTTGAGACAGAGTCTCTATCGCTACGCTGGAGTGCACTGTGCGACATGGGCTCGCTGCAACCTCCG  
CTCCACAGTTCAAGTGATTCTCTGCCCTCAGACTCCTGAGTAGCTGGGATTACAGGCACCTGCCACCAT  
GCTCAGCTAATTTTTGTATTTTTTACTAGAGACAGGGTTTCCCATGTTGGCCAGGCTGGTCTCGAATCC  
TGACCTCAAGTGATCCACCTGCCTCAACCTCCCAAGCGCTAGGATTACAGGCATCATTTCTCTTCATA  
ACAAATGCTAGGAGATAGGTAGTATTATTATCCCTACTTGACAGATGAGGAAACCGAGGCACAGAGAGTAA  
AGAGCTTGCCCAAGTCACATGGTCAATAGCGGAAGCAGGATTCTAACCTGGGTAGTCTGGTCTGGAGCTG  
CTGTTCTAAGCACTACCCCTCTCATATATCCACACACTAACATGCACATACTGGAGATACAG  
GATCATTTTGTCTGAGTCAGAGACATGACCAAGTCTGGACTCATAGCTCAGGATACACTGAGGGGTA  
GGAGCTGATATAGTAGATGCTACAACCTGGGCTCTTAGCAGGTGCCTGGGGAGGAGGCTGGAAGGCTCAA  
TACATGCTGCCACGTTTCCCTCCATGATTTTCTTTCAGTAACACTTAACCATTTGCTTGTCTTGGA  
TCCTGCACAGACCTGAGGATTACAGATAGCTGGAAGATAGGACTTCTCCAGAGAGGTCATCACCTA  
ATTTAGATGTAATGTGACACTGTAATACAACATAGGAGTTGCTCAATAATAGCTGTTGAAGGAGTAAAT  
GATGTTCACTCATACCTTCCAATTTGTCTGATTTGTCTTCTTCATAAAGAGGTGGCCAAATAGATTTT  
AAAGAAAAGAGGTAAGACACAGAGCATATCAGAGCCCTTCTGCCACAAAGCAGTGTGCTGCCAGCCTAGG

FIGURE 1, sheet 38 of 66

FIGURE 1, sheet 39 of 66



FIGURE 1, sheet 40 of 66

FIGURE 1, sheet 41 of 66

FIGURE 1, sheet 42 of 66

ACTCAAGGGATCCTCCCGCTGCAGCCTCCCAAAGTCTGGGATTATAGTTGTGAGCCACCATGCCTAGCC  
ATATAACGTTTAAAAACAGAAAGCAATTCATCTCATGTGACAGCAGGCTGGGCGCCTGCTGTCACTTT  
GGGAGGCCAAGGCAGGAGAATTGCTTGAGCCAGGAGTTGGAGACCAGTCTGGGCAACATGGCAAAACCC  
TGCTCTTACAATAAGAAAATAGAAAATAGCCGGGCATGGCGGTGCATGCCGTGACTCTGGGCTACTCGGGG  
GGCTGAGGTAGGAGGATCGCTTGAGCTTGAAGTTGGAGTTGTAGTGAGCTGAGACTGTGCCACTGCAC  
TCTAGCCTCGAAGACAGAGCCAGACCTGTCTCTTAAAAACAAACGAACAAACAACTGACACCTACAA  
ACACATGTATTAATTAATAGGACATGTGAAGATGATGAACACCAATCCAGGGTTACTGACACCTC  
TAAGGAGAAGTTAGATCATACAGGACACTTGAACGTGTGTATACCTTTTAATTTTTAGCTAGGTGATG  
GTGTATGGCAGTTTGTATATTATTTGTATGCCCTTTAGCACATCAGACATTTTACAACAAAGAAAA  
AAGATGTAGGGAGAAAGACACTAATTTCTGGCCTAATTTGAAGTATAACACTATTCATTCTCTCCTAAT  
TTTTCAATTTGATCCCCGAAAGTCACTGAAGGAAGAAAAAATTAATAACCACTCCAACAGTCTCTCAA  
TGTCTTTTAAACATCAAAGCTGCAGACAGAAAAGAGATGCAGGGAGTTGCTGACCTGGGAATTTCTCTGG  
CCCCAATTCCTATCCATAAGTTTGCCTTGTCTCCAGCAAAGGCCTAAAATATCCAGGAAGTTTGTCTAGT  
GTGGTATTCATTAGGAAGATATATAGTTTGGATGGTTTATAAAAATGCTATACTGGAGCAAACTCCAA  
CCTACTGGCTTTCAAAAATGAATTCCTTAGTCATATTTACTCTTGTTCAAAGAAGAGGACATTTGATA  
AGGGAACAGCTTTTACAGGAATCTCAGAGGCCACATCTTATATTACAGAGGAGGAGCAGACAGAAAAG  
ACCTGAAGGAGAAAACCCCTAAGATCCTAAGAAGTGAGTTTTGCAAAAGTCTTTCTCGTCTTCAACAA  
CAATCGTAAAAAGCATCAATTCATTCCTTAAGAGACGAGCATGTTATGTTAGACAGATCGGGAAAAATA  
TTTTCTGATTGAAATGAAACTCAGTTTCAATACAGAAAGAGGCAAGAGCACTTCAAAGTACTCAGA  
AAACAGCTAAGTAGATTATCTTGGCCACTTGTGGGATTCAATACCTTAATCAGCTCTTTTCTCGTTAGG  
AGGTCTCGTGAAGCTCTGGAAGAGGATCTTCACTTTGTGCCTTTAAACTTGCAGCCTGCTTTTCAACT  
CCTTGATTTCTTTTACACTGGTCCAGGTCTATTTGAAAACAAGATTAATACTGGTAAGTATTTTGCT  
CTTTAGAATGAATTGTAGAAATAGAATAGCTCATTAAATCCACATAATCTTCTATTAAGTTTGTTTTTA  
ATAAATCACACAGACACCCAGTTCCCTGTCTTAAGCAGACTATGGTCTCCAAAAGCAGAGGAACACCA  
TATGACTCGACCTCCTTGCAGCTTACCTGTGGCTCATTTCACCACCAGGCTAGGCTTTGCTTGAAAA  
TAGTTCTTCCGGGCTGGGCATGGTGGCTCAAGCCTGTAATCCAGCAGCTTTGGGAGGCTGAGGCGGGTGG  
ATCACCTGAGGTGAGGTTTGTAGACAGCCTGGCCAACATGGCGAACTCCGTCTCCACTAAAAATACA  
AAAATAGCTGGGTGGTGGTATGTGCCGTGAATCCAGCTACTTGGGAGGCTGAGACAGGAGAAATGCT  
TTGAACCTGGGAGGTGGAGGCTGCAGTGAGCCAAGATTGCACCCTGCAGCTCCAGCCTGGGTGACAGAGC  
AAGACTCCATCTTAAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA  
TCCCCAATCCCTCTCATCTAACCAATGTGATTTCTACTTTAATTTTGGAAAAGTTACACCTAAAAGGCT  
ACTGTACGGAGTAACCTGTTAGCATTTGACAGCTTTGGTATATGCTATGACAGCACCACAGAACACAAGCA  
CTCAGCCACCTTCTTGTCTTCTTTTCCACCGTCACCCCTCTCTCTGCTGGCTGTCTTCTCTTTCTAC  
AGCCTGGCTTTAGTGACCTTTTTCACATTCAACCTTCACTTTCCACTTCTCACCCTGTGCTGACTACCAC  
CTTCTGCTTAAAGCACTTCTCTGTTTACAAAGCATTTTCACTTTATTAACCTCATGTAATTATAATAAC  
CTTAGGAGATAGACAAGGAAAGTATTATCATATTTAAACAAGTATTATCATATTTAAATGGGAAACT  
AAGGCTCAGAGAAAAATGACTAGCCCGTGGATCTGGGGTTAAAGCCAAGTCAAGGGTCAACCTCTCTT  
TTCTTCAATTTTAACTGTTGAACAAAATAGGTGCCTGCATTTTCACTATAGGGTATTATATTCGATT  
CATTAGGATAAACTTCTTCTGAAGTTACTAAAATATACAACTTCAATGAAACACTATTATTCAGT  
ACAGCTGATACCTTAAACATCTTGGGCTCAGCTCATGTTAAGTAACTTCACTGAAGGGAGGCCACTT  
GTGTAGCAATATTAACATCTGGAACCTCAACTCAAAAGAAAGCAAGGAGAGCAAAACCATGAGTTCTT  
CAAACTGTTATTTGCAATATCATTTATGCTTCAAAACATGGCAGATGCTTAACAAATGTTTGTAGTTA  
ATGAATTCATATAGTCCATATATCAATAAAATTCAGATACTTTATTCACAGGAGAAATTTTCAAGCCC  
TAACCTCAGCATATTTTCTTAACTCAGAAAAATATGCTCGTGAAGTTTGGTTATCTAGTTTGGC  
ACACGACAGACTAGAGAGAGTGGGCTATAAGAAGTAAGTGAGCTTGGAGAAAGCAAGTAAAAATAGAC  
AGTTTGACATTAAGAGGAGAGAAAGAAAAATGATAAAACCATATCAGAACTCAAGAGCACAGTAGTTC  
AGGGAGGGCCACAGGTTCAAAGTAATTCAGAGGCCTTGAGAACAACTTGGTATCTTAGCATACAAAACA  
ATAATGATTTTCTTAACTTCAAGCTTCAAAATATAACACTGTAGTTCTTAAAGGTATAATCATACATTAT  
GGAAAAATCACTTATATGGAAAAGTGCTTCTGATGATAGCAGAAAAATGAAGTGTCTGTCTGTTT  
CATACATGGAACATTAGTTTATGATTGAACCTTCATTGAATATGTTTCTGTTTCAAAAAGTAAGTA  
TCTTAATAGAATCTCAAGTATTAAATACTAAACATTGAGCTCTTGAATGCTATATCATCATTTTCACT  
TAAGTAACCTGGCATGACTTACAGATTACAGCTTGAGTTGGAAACTCATGATACTATAGTTTCTTAAAC  
ATTTCCATTTTACACCACAAATGAAATCTATGTACTGAATTTGAATATCATGAATGGAAAAGTAAGTG  
GTGAGTTTACCTTACAGTGCTCTGGAACCTGCTTAATCATCTCTGCCAGCTGGGGCTCCATGTCTTTCCA  
GCTGTCTGAAGTTGACTGATTCTCTACCCACAGACTCTTGTAGTTTTCAGGTGAGTTGTGAGCAGTAAC  
TTTTCTCCAGCTTCCAAGTTAGGGCACAGGTAGTTTCGCTCTCTTGAATAATGAATTTCTTTATCTAAG  
AAAAAAGAGAGTAATTTGCTTAGGTTTCTGATGTGTTCAAAATGTGATTGTGTGCTGTGTATAT  
TTCTTTCAGAGCTTTTCTTAAAGTTTAACTAGATATAAATTAGACAAATGGGTGAGAAATGTACATACA  
CACACATCAAAAGCTAATGTTTTACTAGTAGATAAGCATACCCTAAGTGAGGTGTTCTTAAAAAT  
AATTTCCAAAGATTGGTGAGATAAGATTCTAGTGTAATGATTAGCAGCAGAGAAATAAAAAATATA  
CATCATAGAATAATAGCCTGCAAGGTAATGGATCTAAGAGTATTAAGAAAGTGAATGGAGTAACAGACC  
TGAATCAAGTAACAGACCTTATATTACGCTAAACAAATGTAAAGGAAAGAACGCGAGAAAGGTAATA  
TACAAAAAATATACATTTCTTAAAGCTTTTATGAGCACATAACATGTACATTGATGTGTGCCCCAAAGG  
CGAGCTTTTAAAAAATTTTCAATCCGAATCATGTAGGCTTTCTGAAAAATTAACAAATTTAAAAACAAT  
AGTTTTAGACCCGAAGTGATGGCTCATGCCTGTAATCCAGCAGCTTTGGGAGGCCAAGACAGGCAGATCA  
GTTGAGCTCAGGGGTTGAGACAGCCTGGCCAAACATGGAGAACCCCTGACTCTACTAAAAATACAAAAA  
TTAGCCAGGCATGGTGGTGGATGCCTGTAATCCAGCTACTTGGGAGGCTGAGTCCCAAGAACTCACTTTA  
ACCTGGGAGGCAGAGATTGCAGTGAGCCAAAGATCACACCCTGCATCCAGCCTGGGTGACAGAGTGACG  
CTTTGTCTCAAGGAAAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA  
ATTTTAGTGGCGGTGTTACAGCTCCGTGACTGCTCCTGCAGAGCAGGGCCGCTCCGAGGCAGTGTGCAG  
AGAGTAGCGAAGTCTGTTTTTAAAGAGATGCGCCACCACCTGGCTACATGGGCGTTCTTTAAAGAG

FIGURE 1, sheet 43 of 66

ATTGAACTAGGTATTTATAATACAAAAATAAGTAAAACTTTAAATTTGATCCATACTCCCAAAGGCA  
TTTGGTTTTAGAGGAAAAATTAATAGTTTTGTCTGTCTAAATATGTTTTCTGGCTGGGCATTCTGG  
TGAGTGCCTGTGGTCCCAGCTACTCGGTGGCCGAGGTAGCCTCACCAGAAGTTGAGGTTACAGTGAGC  
TAGATACAGCCCTGCACTCCAGCTGGGAGACAGAGTGAGTACCTATCTCTAAAAAATAAGTAAATA  
AATAAATAATACATAAATATTATTTCTTCCACTTGAAATTTCTGAAGGAGACAAAGTGTGGGCATTTT  
TCCAAAAATGGGAGCTGATAAACATCAACAGAGCATCAATAATTACAAGGCATTTCTGAGAAGCCTGAA  
GATCACCCATACCCAAAGGAGGAAAGCCAAATGCACCCTCAGGAGCAGCACACAAATAAGAGAAACAGCA  
ACTGGACCACAGGCATCCACGTGCATCTCTCCAACATATTGTGCTGCGCAAAATGAGCCACTCGTATTAG  
ACCTGCTCCTCCCTTAGTCTTCCCTAACTCTGTCAACAGCACACTATTCAACAAGATGCTTGAGCTTCAA  
CCCAGAGTCGTCCTTACTCTAGCTTTTCTTTACCAGACTCACAAACCGACACTCCAAAATACGGTGTTT  
TGACACGCTGAAGTGAAGAAGTCTCAGGGTCTCTTACCCTAACGCCTGCGTCTCTACAGAAGCTGAA  
GTCTTTTATCTGGCTAAGACCCGGACTCACAAGGAGAATGATTGTTTTTCTTCCCTCCCTGTTACCT  
CATTATCTTATTGCAGAAAAGAAGACCCAGATGTAACCACACCCAAATAGGCTCTTTCAAGATGACTGCC  
TCCAGCGATACATGAAATTCAAAGATAACCTTTTTTTTTTTTCCAGACAGGCTTGTCTCTGTACCCA  
GGCTGGAGTGCAGTGGTGTGACCATGGCTCGTTGCAGCCTCAACCTCCCGGGCTCAAGTGTGACCCCTCT  
GCCCTAGCCTCCTGAGCAGCTGGGAGTACAGCGGTGCACCACACACCTGGCTAAATTTGAAATTTTTT  
GTAGAGACAGGGGTCTCACTATGTTGTACACAGGCTGGTCTCAAACCTGGGCTCAAGGGATCCTCCACCT  
CGGCCTCCCAAAGTGTGGGATTCAGCCAATTCTCATCAAACCTGTGGCACCCTCTGTCCCTCTCTCAA  
ACTCATGTGGACACATATGATAGCCTTCATTGTTAGAGTGTGGCAGAAGCGATATATGTGACTTCTGAGG  
TTGGGTTTATAGGCAATACAGCTTGTCTCGGATAAGAATCTTTGAAACCATTTGGGTACCATATAAG  
AAGTCTGGCCACTGGAAGCCCTCACGTGGTAACACAACAGAGAATGATGCCCAAGGAGAGGAGCTCCACT  
GTCCAGCTCCTTGCTGTCTCAGTTGTTCAGCCTAAGCATCAGTCATGTGAGTGAGCTTCAGATGACAC  
CAGCCCCAGCCACCATCTGACTGCAACTGCCTGAGAGACCCCAAGCAGGAACCCAACTCCTGTCAACC  
CCAAGTAATGACGAGACAGAATGATGAGTGTCTATTATGACGAGTAAAGTAAAGTATGATTGATTCTTA  
CTTTTCTTTAGCTCCCTTACAATCAGGAACAGCCAGAGTGATCTTTAAAAAATATGGGGCTGGGCACAG  
TGCTCAGCCTGTAATCCAGCACTTTGGGAAGCTGAGGTGGTGGATCACTGAGGTGAGGAGTTCGA  
GACCAGCTGGCCAACAGGGTGAACCTTGTCTCTACTAAAAACACAAAAATAGCTGGGCATGGTGGCG  
GGCCTCTGTAATCCAGCTACTTGGGAGGCTGAGACACGAGAATTGCTCAACCTGGGAGGCAGAGTTG  
CAGTGAGCCAAGATCGCAACACTGCACCTCCAGCCTGGGCGACAGAGTGAGACTCCGTCCCAAAAAAAGA  
AAAAACAAGCAACAGTGTCTGCTGCCCTCTCCCTCAGCTGAAATGCTTCAAAGGCTCCCTGGTTCCAGC  
CAGACCAGGTAATCCAGCTGCCACACCCAACTGCAAAACACTCCTCCCTACCCGCCTTTCTAGTTTACC  
TCTTGCCACTACTGCTGAGCTCTGCGCCAGTCACACTGGCCTTTTGGCGTTCTCTGTGCTGAGC  
TTGTTCTCATCTTGGGGACTTGGAGTAAGCCTCTCCTTCAGTCTGAAAGGCTCTTTCTTATGATCTTGCA  
TGCTGGCTCCTTCTCATCTAGTCCAGGTTAAATGTACATGGCCAGAGACAACCCAATCAAAGG  
AGCCACACATCCCATCTCTACTGGCCCTGTTTAAATGATCTACGTAAGTCTTATTACAATCTGATATT  
TATTGTTTATTAATTTATCTGATTAAATTTCTGGTTTACTACTTTGCTGCCCTTATGAGAGCGAAGT  
CTTCTCTCCATCCACAGAATACACCCAGCACTTAGGACAGTGATTGGCAGAGAGAGGTAATTAAT  
ATGCGATGATTGCATAATGAGTGAGGGCTGTACAGGATTCAGGAGGGTGGTGTGTTGTGAGAGGCTTCT  
CTAAGGTGGAGAGTAGCTCTACAGCTCCATGGGACATGCCAACCACTATGCTAATCCTGTGCTCATCAG  
GCAAGTTTCTTTTGGAAAGCTTTGTGGCTGAATGAATTTGCCCTTTATTTTTTATTTTTTAAATCAG  
TTTTTAAATTTTGTGAGTGCATGAGGTTTTTAAATATAGGCATGCAATGTCCAATAAGCACATCATGGA  
GAACGGGTTTCCATCCCTCAAGCATTTATCCTTTGAGTTACAAATAATCCAATTACACTCCTTAAGTT  
ATTTAAAAATATATAATTAATTTATTCGACTATAGTCACCTACTGTGCTATCAAATAGTAGGTCTTA  
TCTGCTTCTTTTGGAAAGCTTTGTGGCTGAATTTGCTTCAAGAGTAACAATGCCATCACTGTACATTAC  
TACATAATGGTCAATTTATACATTAGTCAGTGGCTTAAAGATCTGGGTGGTTTGTGCTGTTGCCCTAA  
ACCTCCCCCAATTTATTCACCCATCTCCTACTCCATGCCTCCTCTCATGGCCCAAGAGAACCTTAGTATT  
CTGGATGAATGGGTAATATCGGGTTTCCAACCCCAATGCTAGGGACTGGGCTGTGGGGGGTGGTGACT  
GCACCTTCTGGCTGCTCAGCTCAGAGAGAGCCCACTGGATCAGATCATCAAAAAACATTAACCAAG  
GTGAATGAACATCTTGAACAATGACCACCTGTGGTTCTCAGACTGCTACGATGCATACACTACCTTC  
AGCTCATGGATCAGACTTCTGGTTTGGTAGAGGCTGAAGCGCTCCTGGCCCTTCACTGCAGATAGCAGGT  
GGCTGGTGTGAGTGAAGGAGCAAGTTCCTCACAGAAGTAGTGAATCTTGCCACTGCCTCACCAG  
CCATGCAACCTCACCCTTCTCTGCCGAACCTGGACAGCATTTCTGCCACCGATCCGTGAGCTTTGAG  
AATTCTGTAATAAATCTGGTCTGGGGAACCAATGGTTATAGAATCCAGACATCGACATGTAGAAAA  
AATAACTATCAGTGGGTAATAGCAGCTCAGATTCAAGTTTATAGTACAATTTACATGAAAAAATCCC  
AACTTCTAAACACCTGAGTGCTATTCAATTTAAACATGATTAAAGCTTTGGGAAGGGCAGCATGCAGACT  
GAGTTTAGCAGAAGGTATCTGCACGTAACCTGGTATTTTGCCAGCATGCATAACCATTCCTTAAACAAA  
CTGAAGCTGTTTTAATATACATTAGGCCAAACGTGGAAAGGAAACTAGAACTGGATCAAAGGGAACA  
GATGAACAGGCAGGTACTTTGTAACATATGGATTACTTGAGTGACTTTACATAATTTAGCAATAAAG  
AGCATGCTTTATGAGCTACTCAACAGTTCTTTCTGGATAAATAATCTTACACGAGAAATAAGG  
CCTCTGTTTATTTATGGGAAAGTCACTGTTTTCTGTACAGATCAAAATAGAAATAGCTTATCATCTGGA  
ACTGGCTTGCAATTTACTGCTCAGAGCTAGGGAGAAAAGGGCTTTACATTTCTTAGTTATGCTGAAAGAA  
GATTAGAGGTGTATGGGTGGTGTATGTGAAGAAAAATCATACCCATTAGGACATTTAGAGAAGTATTTA  
AATGGCCAGGCCATTTCCAGGCTATCTGCCATGTGTACAGCTGCATGAGCAGACTCACTCAGCATTAGCA  
GACTGGCCAAAGGTGCTCTGTTACGCTGATTGGCAGTGGCCAGTGACCTTAAGCCACATATGTAGCAT  
GGAGAGAAAGCCCTTCTTTAGACTTATAGGATTTAGCTACCTACTGGGAACATTAGGAATAATCATTTT  
TTAGAAATATTTTTTAAGTCGCAAAACATCATGAGGATGATGGTAGAGAAGGAAACAGTACAGAAGAA  
CATTTGGGGGCACAACTTAGTTAACTATACTTGAGAAGTGGGCATTTTCCAAAGCTTCTGGGCTGCTAA  
CCTTACCCCTACCATCGGAAAGGTGTCTGTACAGATGTTTTATGTTGCTACCCAGCAAGATCTAGT  
CCCCTACATAGTTAGAAGCCTGGTCTTATGGTGATCTGTCAACCAACAGGGCAGAGGCCACCAACATGG  
TCAAGGTTACATGGTGAAGCCTGCCCTGACTGAATGCATTACCTTCCATCCGCCACAACCTTCTATG  
AGGCCAGACAGCTCACCTGTTCTTATTTCTGTTGTGTCCAGGAGTTGTAAGGACTGGGTGACATAGGA



ATCAGCAATTGTCTGGTTTATAGAACTTCAGCTTCTAACATCTGTATATGAGTCCAAGCAGAAAATATC  
AGCTAGTAAATTCATTTTATGAATCTCGGAACCTACATTTCTATTAAAACTAAGCTTACAAAGGATA  
TGAGGGATAATTAATTTTATATTTTGAACCTACTGCAAAAAATGTTCAACTATCATATCAACATCAC  
CTACGAATATATTTCTAAAAGCAAACAGGTCTAATAAATTAATACATCTAATACCCATTGTTGGGCACTT  
ACGATTTGGTAGGCACTGTAACATGCATTGTCTCATTATTTCTCAGCCTTAGGATTTAAGCACTATT  
ATTACATCCATTGAAGAGGAGGAATCTAAGGTATAAAGAGGTTTCAGTAACCTACTTAAAGGCCACTCAGC  
TTTTTGGCAGGGGTGATTTCAATTTAATTGGATGATCTTAATGTAGCAATGTAGACTTCAATCAGTTACA  
TTAAAAAGTTGAGTGAAGTAATCTGCACACTTTTGAATGTGTCTTTGTAATCCAGCACTTTGGGA  
GGCCGAGGCAGGCGGATCACTTGAGGTGAGAAGTTCGAGACCAGCCTGGCCAACATGGTGAACCCATCT  
CTACTAAAAATACAAAAATAGCCAGGTGCAGTGGCACATGCCTATAGTCCCAGCTACTCGGAAGGGTAA  
GGCAGGAGAATTGCTTGAGCCTGGGGGTGGAAGTTTCAGTGAGCCGAGATTGCGCCACTGCACTCCAGC  
CTGGGTGACAGAGGAAGACTCTGTCTCCCCCACCACAAAAAGCAGGATCTGCCTATAACCACAGGAGT  
ATTTTCAAATACATGTGAGCATAAGCACTGAGGAACTCCTGTGAAATTATTAACGCTACAGTTATAATT  
ATACCAGGTGCTTTAATACTATGGAGAATTATTGAGTGAAAAATACAAACATGAGTCGAAGTATTTTATTA  
TACTCTTGATAGAATGGTATAATGTTTGCATTTTGTGGAAGCAAAGTTGACTAGAAGCTTCCATGTACT  
GCAGAAATCTAGGAGCTCTCTCCCTAATAAATAGAGCAGTAATGTTGAAATTTATGAAACGTATAAG  
AATTTTACAAATGACCAATTGACAACCTGAATTTGCTTAAAGGTATACATTCTGTGTTTAGGGACTGATAG  
GTACACTCCCTGTGTTTATTTAAAGCTATCTTCCCTGACTCCTGCCCCAGATGAGCGGTTCAAGGGTG  
GCAGAGAACACAGGTTTACCTTATAGGTTTCTGCTGCTCCAGGAGCTCAGGAAGGCTGTTAGCCACATC  
CACTTTGAGTGTCTTCTTATCTTCTCCAAAGTTGGATCCACTTTTACAGCAATAAAGAACTTTTCA  
TTCAATCCAATTCCTGAAGCTCACTACAAAGGTTTAAACAAAAACACCCCATGTTAACAATGCCATTC  
CCGAGCTGAAGCCGTTAATTTTACCTTAATTGAAACAACGACAGAGAAGGGATGTTCTAACCTGCAGCC  
TCCAGTGCCGTGGCCGTGGCCGAATCCATTGCCGTTTCATATTTGTAACGCTTTCACAGCTACGTCAC  
TAAGTGGGAGCTTGAGGCTCACTTCATTCAAATGTTCAATATCAGGTGATTGGGCTGTCAGTGCCAGCA  
ATGATTTCTATTTTAAAAAATGAAGTACAGGTTTGGATGCCAATAAGATATCTAGATGACAAAAAAC  
CCTCCTTACCTCAAAGATAAAGGAAACTGGGGCCTGAACAGGCAAAATGACTTGCCACAGTCAAACAGC  
TTGCTAATGTTAGAGTGGGACCTGAATTCAGCTATCTCAATGCTGTGCTTCTAGAAATACCAACCTGCAA  
CACGGCCAGCACCCAAACAGCCAGGAATAGAAAGTTATCTCAGATTTGTCAACGAAGAATACAGAAA  
ATAGGCTTTTTTATTTTTTATTTTTCGGAATGGAGTCTCATTCTGTCGCCCAGGCTGGACTGCAGTATCA  
TGATCTCGGCTCACTGCAACCTCCGCCTCTGGGTTCAAACGATTCTCTGCTTCAGCTCCCAAGTAGG  
TGAATTACAAGTGCTGCCACCACACCTGGCTAATTTTGTATTTTAGTTTACCATGTTGGCCAGCT  
GGTCTAAAACCTGACCTTGGATGATCCACCTGCCTCGCCTCCCAAAGTGCTGGGATTACAGGCGTAG  
CCACTGCACCCAGCCTAACATGCTTTTTAAAAAAGGACCAATTTCTGGGCTTTTAAGTCCCATTTAGTCTG  
CCAATAACCTGGCCTTCAACAAACAGGTCAAGCACAGAGTGATGAAATTTGATTCTTAAAAAATCTTA  
GCAGAGCAAGGGACTTAAACACCCATATTTTGATAGAACATGACATTGCAAGAAAGCAAACTTATCAAAA  
TTTCATTTTTTAAAAAGATATTTCCAGCGACAGCTTCTAAGCTGACAAGCAAACTCCTTAACAATATTGA  
GTTACCCTACAGAACTCTGCTGAATATTCTAGGTCAAGATAAGCAAACTTTTCTGTAAAAGGGCAGA  
TCATAAATATTTTAGGCATTTGTGGGCCATATGGTCTCTGTAGCAACTAGTCAACTCTGCCCTGTAGCG  
TGAAACTATAATAGACAATATGTAATGAAAGGGCATGGCTGTGTTCCATCAAAATTTTATTTAAAAA  
AAATCAGTGATGGACAGTGCACACAGTTGTTGACTGCTGATCTAAGTTATGAATATTGATTCTAGGA  
GAGTTACAAGACCAGATCTAATTTCTTTCAGTCATTTATGTTTACTAACTAACTTACGAAGGTAAAGAA  
AAATGCATAATAGAATTTTTTTTATATTAACTAACCAGAAAAATTCATTAATCACACAGCAATTTTC  
TAGATTATTTTCAGTTCACTGACGGTAATTATGAAAAACATCTACTACAAATTACTCTGACGTATTACTA  
AAGAGATCCCTATGTCTACTCTTTTCTAGGCCTGAGGAAAAATAGGACAGTAATGAATGGCATAAA  
AATGACTGTGCTCAAGGGTGAGTTAGGCCAGGCGCAGTGGCTCAGGCTGTAATCCCAGCACTTTGGGAG  
GCCGAGGCAGGCGGATCACTGACGTCAAGAGTTCAAGACCAGCTTGCCCAATATGGTAAAACCTTCATCT  
CTACTAAAAATACAAAAATAGCCGGACATGGTGGCACATGTCTGTAGTCCCAGCTACTTGGGAGGCTG  
AGGCAGGCAATGGCTTGAACCCGGAGGTGGAGTTGCAGTGAGCCGAGATCGTGCCACTGCACTCCAG  
CCTGGGTGACAGAGCGAGAGTCCGCTCTCAAAAAAATAAGAGTGAGTTAGGATGCAAGCATTCCAT  
AAGTTACAGTAATCAGCTTATTTTTTTTAACTTATGGTGAGTCTAAGCCCTAGAAAAGACAAATATT  
GGCAATACCAGGAATGAGTCAGGATTTCTTTTCTGTTGGTGAAGTCTATCCAAATCTCTTCTTTCAT  
GCATAATAAGACCTTTTAAAGATTCCAGCCGAGCTCCAAATCCTTAACTGTGAGAGAACAACATAGAA  
CAAGAGAAATTTTCATTAGAACTATTTTCATGTACATATAAAACAGAATTAAACACAGGCTTTGGGAGCT  
GCTAAAAATTCAGATGTTTTTGGCTAGGCACGGTGGCTCATGGCTGTAATCCAGCACTTTGGGAGGCC  
GAGGTGGGAAGATTGCTTGAGCCAGGAGTTCAAGACCAGCTGAGCAACATAGGCAGACTCCATCTCTG  
CAAAAAATAAAAAATTAGCTGGGCATAGTGGTGTGAGCTGTGGTCCAGCTTTTGGGAGGCTGAGGCA  
GGAGGATCAACTGAACCTGGGAGGTCAAGGCTGCAGTAAGCTGTAATTATGCCACTGCACGCCAGCCTGG  
GTGACAGAATAAGACCTGTCTCCCTGTCTCAACAAACAAACAAACAAACAAAAAATAAAAAATAA  
AAAAAGTAAATTCAGTTGTTTTTCAACACCCAGAAGTTCACTATTATCTCAAGAAATCATAGATAAATAT  
TCAGAAAGCCCTGATTTTCACTCGTCCCTTTGAGCCTTCCAAATGGACAGATCACCCGCTGAGGAG  
ACCACATAGAGAGTCAGTGAGCACTCCGTTCTCTCAGTCCCACTAGTTAAATGTGCTTTTTTGTGTTT  
GTTTTCTGTGCTGCTGATGATGTGACTGCACTCCATGGCCTTCTGTGTAGCTTGTGACAGCTCTCT  
GCACTAAAGGCTTTATAAAAGTGAATGAAGGCTGAGAGCAGTGGCTCATGCTTGTAAATCCCAGCACTTT  
GGAGGCCAAGGTGAGTATGATCACTTGAAGCCAGGAGTTCAAGACCAGCTTGCCCAATGTGGCGAACCC  
CATCTCTACTAATTATACAAAAATAGCCGGCCAGACACAGTGGCTCAGCTGTGTAATCCCAGCATTTTG  
GGAGGCCAAGGAGGTGATCACGAGGTGAGGAGATTGAGACCATCCTGGCTAACATGGTGAACCCCTGT  
CTCTACTAAAAATACAAAAAATAGCCAGGCATGGTGGCAGGCACCTGTAGTCCCAGCTACTCGGGAGG  
CTGAGGCCAGGAGTAATGGCATAAACCAGGAGCGGAGCTTGCAGTGAGCTGAGATCACACCAGTACTC  
CAGCCTGGGCGACAGAACGAGACATCTCAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATA  
AGCAAGCCAGGCGTGGTGGTGGTGCCTGTAGTCCCAGCTATCCGGAGGCTGAGGCAGGAGAAATCGCTT  
GAACCCGGGAGGTGGAGGTTGCAGTGAGCCAAGATTATGCCACTGCACTCTAGCCTGGGTGTCAAGTCAA

FIGURE 1, sheet 45 of 66

$$\begin{array}{ccccccc} \{1\} & \{1,2\} & \{1,2,3\} & \{1,2,3,4\} & \{1,2,3,4,5\} & \{1,2,3,4,5,6\} & \{1,2,3,4,5,6,7\} \\ 1 & 3 & 6 & 10 & 15 & 21 & 28 \\ 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 1 & 1 & 2 & 3 & 4 & 5 & 6 \\ 1 & 1 & 1 & 2 & 3 & 4 & 5 \\ 1 & 1 & 1 & 1 & 2 & 3 & 4 \\ 1 & 1 & 1 & 1 & 1 & 2 & 3 \\ 1 & 1 & 1 & 1 & 1 & 1 & 2 \\ 1 & 1 & 1 & 1 & 1 & 1 & 1 \end{array}$$



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GTCTTACTGATTTGGCTCATGTGACTTATTTTGAATTTCCAGTTATTTCTTTTGAACTGCTATTTAACA  
TGCTTTTGCTTCTCTGTGGGAGGGCACAACACAGTTATGCCCGTTACTGTGCTTCCCTCCATTTGTAA  
TTCTCTGCCAATAATGCACCATGCCAGCTCTGGTTAATTTACCTGAAGGTTCTCCACCTGGCATCTCAA  
GGTCTCCAAATGATAACACACAGGCTTGCTGTCTCCATGTCAGTACCAGAATCGGATTGTCATCATATTC  
ACTTCATCATAGAGTTGATCATAAATCTTCCACTCTGTAAACTGACTGCATGGAGGTTTGGAGCTGAT  
TGACCTAGACAAAAGTGGAAACGTACTGATTTAGAAAATCAGTGAGAAGACATGCTCTCCAACAGATCT  
ACCATTGTGTCCAATTTAGGCATTTCAATTTGAGAGTATTGAAGGATCACCAGTGATTAAGTGAAGGTGG  
AAAGGGTAGGTCAATGCATAAGAACATATCAGAGAAGGCTGTTTATAATGAGTGAATGAAAAAGAGCCC  
AAAGATCAGAAGGATCAGCACTGAAGGAGTTGAGTACAGGAGAGACAGCCAGGGAAAGAACACTGGGT  
GAGTATTAGAATTTGTGAGTGCAAGGTTCAATTATATTCTATTAGCTTTCTGACCTTGGGCAACTTATTG  
GACCTTAGAGTCAGTTTCTCATCCACAAAACAGAGATAATAATTGAAAACACAATAAAATAGTGTCTG  
TGAAAATGCTCTGACAACAGCACAACATATAAATGTAAGATGTTACCTGGCACTTAAGTCTGATTATTA  
CTACAGAGCAAGCACAATTTGGAGAGGAACATGCTCTACCAAAATGATGGGCAAGTGCAAAGCAGGAGGC  
AAGCAATGGTGAATGTATTTTGTCCACTGGTATGTTCTGATAATGATGAAAAAGTCCAAGCATTTCTGTT  
GCATATCCAAAATGATCTCAGATACAATCAAGAGTATGTAAAGAAAACCTTCAAAATCAATATTAAGACA  
GTTAAAGCTAGGTAATGCAATGGGCAAGGAGTACTAAACATTTCCCAAGAACATATATAATGGTCAAA  
TAAACATATGAAAAAGCACTGAACATATACAGTCATTAAAGGAAACCTAAATCAAACCACAATGAGATAT  
TATTTACATCCACTTTGATGGCCATAATCAAAAAGTCAGATAATAATGTGTTGGTGACGATGTGGAAAA  
ACTGGAATCCTCATACATTGCTGGTGGGAATGTAATGGTACAGTCACTGTGGAAAACAGCTAGATAGT  
TCCTCAAAAATGCTGACAACAGCACAACATATAAATGTAAGATGTTACCTGGCACTTAAGTCTGATTATTA  
AGCGTATGTTACATAAAAACCTGACACAATGTTATAGCAGCAGCATTTCATGAGAGCTTAAAAATGGA  
AACAAACCACATGTTTCATCAACTGATGGAGAGGTAAACTAAATATGGTATATCCATACAAATGGAATATTA  
GCCATAAAAAATAATGAAGTACTGTAAATACTACAACACCGATGATCTTGAAAACATTATGCTTAGTGAA  
GGAAAGCTAGGTAATGCAATGGGCAAGGAGTATAGCATATGATTCTATTTATATAAAACGTCAGAAATAGGTAATC  
ATAAGAAGGTAGACTAGTGGCTGCCAGGGAGTGGAGAAGGGGAAAAGTGGGAGTGACTGCCAATGGGTA  
TGAGGTTTCTTTTGGAGTAAATGAAAATGTTCTGTAATGAGATAGTGGTGTGCTGTGTATCTCTGTT  
AATATACTAAACATCACTGAACATACCTTAGAAGGTGAATTTTATGGTATGTGAATATATCTCAATTT  
TTAAAAAGGATCTGGGTTGAAATGGAATGTGATCACTATAGTGGCTCCACAGGCCATCTTTATGGGTAGT  
GTGATGTGAGTTTGGGTACAATCACACAGCTCTGCACTCAGACCTGTTTTCTGTTTAAATACTACAAG  
GAATGCTGGCACATCCACAGTGACAGGGAGGCTCCTCAATCTCTGCCCCAAACAGGGCTGGATAAAAAAC  
CAAAGTGGGACGCTAAAATGTGAGTCTCATGTTGGCAACTATGTGGACTGAATGTCTTTACAAGGGCAGG  
ATGGCTAAGGAAAAGAAAAGCTTATTTAGTTAAGAAAATAAAGAAGGCGGCCAGGTGTGGTGGCTCAC  
GCCTGTAATCCAGCACCTTTGGGAGGCCAAGGTGGTGGATCACCTAAGGTCAGGAGTTCAAGACCAGCC  
TGCTCAACATGGTGAAACCTGTCTCTACTAATAATACAAAATTAGCCGGGAGTGGTGGCACACGCCCTG  
TAATCCAGCTACTAGGAGGCTGAGGCAGGAGAATCTTTTGAACCTGGAAGGTGGAAGTTGCAGTGAGC  
TGAGAACTGACCTGCCCTGCCCTCCAGCTGGCAACAAAGAGCAAAACTCTGTCTCCACAAAAAAGG  
AAAGAAAAAGAAAATAAAGAAAGAAAGGCAAGGAATTCCTCATCGATGTACATTTTGTAGAAAT  
GATCTCATATCTATCTGGGTGGCAGGGATAATCTGGCACAAAGTACCGCATCATCCAGAGCCCATATA  
TACATGTCAACACAAGAACTGCCATGGCTCATGTTGCACAAGGCCCTTTCAGCTTCCACAGATAAAGGTG  
TGGAACCTGTAGCACTTCAAGGCCTTCTGGCCTTATAATAAAGCTTCATGGAAAAGACACAGTACATG  
AGGTTTGGAGGAAAGGATGAGAAAATCATCAAGTAAATTCATATACTAAAAACAAGCGGAGGAATAT  
TTTCAAAATGTTTCAACTGGGGTCATCAGCAGGGCAGCATTTATGAGCATTGTATAGGCATCAGTATTA  
AGATAGAAATAAATGACTAGGTGTTATCATCCCCATTTTATAGACCAGAAAATCGAGGCTTAGAGAGGTT  
TTGTCAACTCTGAGCATTAAGGTTTGAAGCTGGGCCAGGCTACATTGACTCTTGACAGCTTATAGA  
TGGATGATCTGTGCTCACGCCTTCTGCGTTTTTTTTTTTTTTTACTTTTATTGAAATATAAATTCATGTACC  
ATACGATTCATCTATTTAAATGTGTAATCTCCATAATCAATTTAGAACATTTTCATGACTCTGAAAAG  
AAACTGCATAAATATTAGCAGTCACTCCTCGTTCTCCCCAGCCACTAATCTGCCTTCTGTCTTTATAGAA  
TTGTCAATCTGCTGTTATTTCCAGTAAACAGAAATCAAAACAATATGTGACCTTTTGTGACTGGCGCTTTCA  
CTCACCATAATGTTTCCAAGATCATCAGTGTGTAGTATATATATATATATGTATGTACTACTTCAATCC  
TTTTGTATGGATAGACCAGTTTTCTTTATACATTCATAGTAGATGGACAGTTGGGTTGTTTACACTTT  
CTGGCTATCATGAATCATGCTATGAATATTCAGTATAAGTTTTTGGCGTGGACAGTTTTTCATTTCTCT  
TGGCTATCTATGGAGGAGTAGAAGTGAAGTGCATGGTAACCTTTATGTTTAAACATTTGAGGAACCTG  
CCAGACTCTTTCCAGCTCCATGGAACCCGTCAGCAGTTTGTGAGGGTTACGCTCTCCACATCCACATTA  
ACACTTGATACTGTCTGTTTTTGTACAGCTATCCTAGTGGGTGGCAAGTGGTACTTCTTTGTTGTTG  
TGATTTTCAATTTCTTGATGGTTAATGACATGGAATATCTTTTCAATGCACTTTTCGGCCATTTGTATTG  
TCCTCTTCCAGAAAATGTTTATTCAGATCAATTTGCTTTTTTTTTTTTTTTTTTTTGGAGACAGGCTCA  
CTGTGTTGCCAGGCTGGAGTGCAGTGGCATAGTCTTGCCCTTACTGCTCTTCCACCTCCAGGCTCAGG  
TGATCCTCGTGCCCTCAGCTCCTAAGTAGCTGGACTACAGGCACACACCACCACACCCAGCTAATTTTTT  
CTATTTTTGGTAGAGATAGGTTTTGTCATGTTGGCCAGGCTGGTCTTAAACTGCTGAATTCAGCGATC  
TGCCCGCTTGGCTCCCAAGTGTGAGGATTACAGGCTGAGCCACTGAGCCTGGCTGTATCATTTTTT  
TTCCATTTGGTCATTTTTCTTTTATTAAGTTGTGATAAATCTTCATATATTCTAGGTGTAAGTCCC  
TTATCAATATATGATTTATAAATACTTTTTTAAACAATTTGTGGTTTGCCTTTACTTTTTTGTAGCTGT  
GCTTTAAACATCAAGGTGTTAGTTTGTGTAAGTCCAATGTATCTATTTTTTTTCTTTGATAGCTTACG  
ATTTTGGGTGCTTGTAGTAACCCCTGCTAATCCATGAAGTCATGAAGATTTACACCTGTGTTTTCTT  
CTAAGTTTTATACTTTTAGCTCTAATACTTGTGCTTTTTTTTTTTTTTTTAAATACAAATGGGGGCTTGC  
TATGTTGCCAGGCTGGTCTGAATCTTGCCTCAAATGATCTCCACCTCAGTCTCCAAAGTGTGG  
GATTACAGGCATAAGCCACCATGTCTGGCCTGCATTTATGTCTTTGATCTATTTAATTTTTGTATATTG

FIGURE 1, sheet 47 of 66

TATGAATGCAGAGGTCTAACTTCATTATTTTACATGTGGATACATGGTTGTCCAGCACCATTTTCAAG  
AAAGTGTTCCTCATTAATTTGTCTGAGGATCCTTGTGAAAATCAATTGACTACAAATGTGAGGGCT  
TATTTCTGGACTCTCAATTCATTCAGGTATATATATGTCTATCCTTATGACAGTACTATCTGCATGTT  
TTCACATGCATTATTTCAATTTAATTTCTCTTTATATTTTATTATATTGTAATTATCTGTTTACATGTG  
TTTCTTCCACTAGCCTATGAGTTCTTTGAGGGTAGGATTCATTATTTTCTTGTACCTTTGTAACCCCT  
GGCAGTGAGCACAGTACCTCACACAATGTATGCTTAACAAATGACTGAATAAGCTCATCTCTATTTTCT  
GCTACATTTCTGGGGGAATGAGGACTGAGGAATGAGGCTGAGTGTGCCTATGGATTTTCATGCAGGTAT  
TCCCTATTCCCTCTTGGTACAAATGGTTGAAAGTAGATTTTAGTAGGTGACAACCCACAATGAAGGTTCT  
CTAGGAAACATGGACATATCTATAATTGATGGTATAGATTATACCATTGATAGATTATACCAATTGATTG  
GTATAATTGGTTAGTATTTTAGTTCTCTCTCTGTTGTGGGAAAATGTCAAGGTTGCAATGTCTAGAG  
ATGCCTGAGCTCGCTCTCTTTTGGTGCTCTCTCTGGAAGGGGTAATGCTGACATTGACATGCCTTT  
TGTAAGATTATTAGATGTCTTGACCCCTTCTCTCTTTTATCTCTCTCTTCAACACCATGTAGTGTCTCT  
TCCAAACTTTAGAGTCTCTGGAGCTGACTATGCTCTAGCTCATAGAGGCTACATGATACAGGATCAC  
TTCTCTCTGAGGCATCTCCCTGTACATGGAGACACTGCTTCATCACTGTTTCTGTATATCTTCCAGGA  
AACAAATGCCAGATACTCTGTTGGGTTTGGGGTATGGAGATATTTATGCTGAGTGAGTACATTAGACAAA  
ACAAAGATAACCAAGTGGATTTCAGCCTGTCAATGACGTTGGAATTGGTGGCTTGGCTCTAATTTATG  
AGTGCAATAAATGGGACTGAAATGCTTCTAATTTACTTCAATTTTCTCAGCAACTTTTCAGTGTGTTGG  
TATAGAGAGTCTCCATGAGTAAAGGACGAAACAACTACAACGACAAATAAGGTAAAGAAATATGTGAAG  
AGAAATAGCACATTTCAAATGAATCTAGTACCTGAGTGAGAACACTGCTTCTCTTTGAAATAACTCAT  
CAATTTCGGGATGTATCTTCTTAACAAATGGCACTGCCCACTCTCCAAAGTCAGATAACTTTGTTTCAA  
CTCATCTAGTCTTTGGATTTAATTGCAAGTTGATTTTCTATATCTGGAAGAGTAAGAGGAAAAGGTTT  
TCAATGCACAATATTACAAAACAAATTAATAAGGTGTGAGAGACAGGAGTTCACCTTTTCAAGTAAAAAT  
GTCATTAGATTATATAATTAATAGCATTACATCAAAGAAATTTAAATCATAACTCTTAGTTCAATTA  
CATGTGACACAACCTCTGTATTTTAGGAGAATCTAGGCAACACGCTGTAACCATCATGGCAGAGCAAG  
GATGCTGGTCCGAGATCTGGTCCCCATTCACGCTCTGCCCTGCACTGGCTGTTTGACCAGGCATAAGTCA  
TCGAACCTTTCAGTCTCCATTTTCTCATTTTGGAAAAAGTGATGATACCCACAGCATGTGTGCCAAGCTAA  
GAACTCAAATAAAATCACGAGCAAGAAGGTGCCTTTAAACCATATAGCATCATATAAATGACAGACGATA  
TAACCTGTTGGTAGTTTCAGTAATTAACCTTTAATCATTTTCTACCTCTTAGTTTATTAATTAACCTATAAG  
GCACCTGACCTGGTCTACTCTTTATAGATACATTTTAAAAACCTACAGGATCCCTCTACTACAAAGGA  
CACCATGGGGCCAGCAGTCTGAAAACAGAGATGAATGAGGCCAGCAGCAATGGTGCCACTCTACTCAGAG  
GAAGGACGGTCGGAGCTGCTTATTTGTCTCTCAGGATTGCACTTGAATCCAACCTTGAAAAAGTTTA  
AACTTTTAAAAATTAATAAGCATTAACATGCTTACATAAAGAACTGGAAAAACACAAGAGATCTTTGG  
CATTCAGAGGGATTCAATTTGAATTTCCCTCAAGTCTCCCAATTCACAAATTTGGGACGCGCTTCTGCAT  
ACTTTCTTTAGCATTACATTCCTATCCAGATGCATGTGTTCTGAATGCATGGCTCAAGATAACGACCTT  
TAGCTCATGTTCTATTTCTCTCTTGAAATTTGCTTTGCATAAGGATCCCAGCTTTTATTTTATTTT  
TTGAAAATTTGCTTTGCCTAAGGATCCCAAGCTTTTCTTTTCTTTTGAATAATGCTTTGCCTAAGGATC  
CCAGCTTTTCTTTGAAAATTTGCTTTGCCTAAGGATCCCAGCTTTTCTTTTCTTTTCTTTTCTTTTAA  
ATCCTTTGTAAAGATCACTGCATGGTCCATAAGGAAAGAGAAACATGAGTGCCTCGTGGGCATGGGGTAG  
CTGAGCAGGTGGCTTGTACCTGGGAGGACAAGCTCCCTTGTGCTAGCCTCACAGAGGAGCACTGAAAT  
CCAGTCCCGCAAACTGCCAGATTCACACGTGAGGAGCCCTCAGGTCACTCTTGAAGGTGGAATACACA  
AACTCTAAACCAATGAATGTCAGGGGTCTTCTGGACTGGAAAGTAGAAAAAGGGAAAAAAATCTGTTCCA  
TAAGAAACTGATAGCTAGGTTTGGGAGTAAGAACGGATGATGAGAGAATGGAGCTGGAGGAATCTTCCAC  
TGTATGACCCCTCTATGCTTTTAGAATTTAGAGCCACATGAATATATAGCGTATGAACAGAAAACCTCTCA  
ATGTCGTAACCAATGCCACCTCAACATGTGGGTGAATTTATGAAATATTATCTTCTGGAAGTCTTTG  
AAAGGCACCCAGGAAACAAAACGACTTCTCTGAAATAGCCTTTGCCAATGAGATTTAGTCAGCTGCTACC  
TCTGTCCATCTCTGCCACCTTAACCTCGCTCCCTCACACCTGACAGCCTTATTTATTAGCATGTTCTTT  
TATCATAGGTTTAACTTTTCTCTGCAAGTTATAAATGAAAACACTTTAATATTAAATCACTTTCTCT  
TCTTTGAATTTATAAAACAGTCTCTCTAAAGGCTTGACTAACTAGATTCTTAAAAACACTTATTACTA  
ATAAGCTGTCATAATTTCCCTATAATGTAAGAAAACTGGTAAGAAATGACTACAAAGCAGACAAAAGGA  
AGTAACAACACACACACACACACACCTTCAAAAATGGCAGCATAAACAACAGCCATGCCGGGCACAG  
TGGCTCACGCCCTGAATCCCAGCACTTTGGGAGGCCAAGGCAGGTGGATCACTTGAGCCAGGAGTTTGA  
CACCAGCCTGGGAAACATGACAAAACCTGCCGTTACAAAAAATAACAAAAGTTAGCTGGGTGGTGCC  
ACACGCTACAGTCCCAGCTACTTGAGAGGCTGAGGCGGGAGGATCCTTTTTTTTTTTTTTTTTTTTTT  
TTTTTTTGAGAGAGAATCTTGCTCTGTCACCCATGCTGCAGTAGGCATGATCTCGGCTCACTGAAAACCTC  
CGCCTCCGGGATTAAGTCATTTTCTGCCTCAGTCTCCCAAGTAGCTGAGGCTACAGGCATGTGCCACC  
ATGCCAGCTAATTTTGAGCCACCGCGCCAGAGTGGGAGGATCTCTTAAGCCTAGGAGCTCAAGGCTGA  
AGTGAGTTATGATTGCAACACTGCACTCCAGCCTGGGTGACAGAGTGAGACCTGTATCAAAAAA  
AAAAAAGAAAGAAAAAGAAAAAAGCCATGGCAATAGCAGCACACGAACACACACGTTGGGGT  
TGCTCGTTCTTTGCTCTGCAGAATAATACGGATTTAGCCAGTAGTCTGTCTGACCTTGCTTTCA  
CTGAGCTTAACATCATCTCAAACTCCCCTCACTTCAACGCAAAATTAATTTGTCTTACTA  
ACTTCCAATTTGCTACACATAAATCAGGGTGAATTAATAAATCTTTGCTAATTATGGAGATTGAGT  
AGAATTTGCAAGTCTATTTTCCATTCTGTGAGAACCAGCATTAATATTTTAAATATCTAAATCC  
TCTGACTTATACGAACATACTTCTTAAAGAGCTGTGCTTGTATAGTATAGAGGCATCAAACTTGA  
GGGATTAATATCTCATCTCAAACTCCCCTCACTTATTCAGATACAAATTTTCTTGATAATTATAA  
TGTCAAACGTGGCTTTTTCCAGTCATCAATGGCTTTTAGAGCCCTTCGGAATATTTCAATCCTAATGT  
CTTCATGCTTCATCAACTCCAGTCTTAACTTTTCTAGAGTAAAGCCACTTTAGCAAGCTTACCTGAAC  
GAAGCATTTGCCCCGGGATAAGTCATTAAAGTATACATCAATCATTTTCTATCATTTTCTTTCTTTT  
TCTTTCTGTTTTTTTTTTAGAGATGGGCTTATCCAGGATGGAGTGCACTGGCATGATCATGGCTTA  
CTGCTTGAACCTTGAACCTCGGCTCAAGTGATCTCTGCTCAGCTCCCGAGTAGCTAGGATTACAGG  
TGTGCAACACTATGCCAGATAACTTTTTTTTTTTTGGTAGAGACTGGGTCTTATGTTGCCCTGGCTGGT  
TTTGAACCTCTGGCTCAAGTGATCTCTGCTCTAGCTCCCAATTTCTGGGATTACAGGTGTGAGCA

FIGURE 1, sheet 48 of 66

ACTGCACCTGGCCTCATTTTAGTTCCTGTATGCAAAGAATAGTGGAAAAAAAAAAAAAAAAAGAGAAAT  
AACATTTATAGAAAAGCAGCCTTTTAGGTCTATTAATAGATATATTCAGGCACTATTAAGCACCTATGA  
ATTTACAGGCAGTGCAGGTATAACAGGCATGCTGATGTGCCAGCCTGCCTTGAGAATCCCACAATCTG  
GTAGACGCAGACCGTGGACAGATGAGCCAGTACAGTCTCTGACACATGATGCTACATGGGGTGTAG  
GGAAGCCTGTTTTATTATTGCTTCCATCTTGGCCTTGTTTATGGCCTTTTACAAAGAGGCATCCAAGC  
AGCAGCATAAAAAATTAATAAGGAAGAATGAGCTAATGGAATGTGGGAGTAGGTAGGAAGGCACAGT  
CAGTGGGCACGTGGTGGGGAGGGGGTCAAGGTGCTTTGATTGAGTTCTGACAAACATAGAGGAGAACC  
GTGTGTGGATGGTGGGGCGAGGGGAGGAGTAGAAATAATTCTGCAATCAGCTGCAATGTAATGGCA  
CAGAGGCAATGGGACTGACGAGGGATGATGCCGGCCAGGCATGTCTGTAATTTCTTTTAAAGCCCC  
TGCTCAGTCAACACTAGTCATTTTCTAATGAGCAGAGCAATGTGAGAAATGGTTTTCTATTGGTAAA  
ATTAATGGATTATTATTGTTATTAGAGATGGGGTCTTGTCTTGTCAACCAGGCTGAACCTACAGTGGCATG  
ATCATAGTTTACTGTACCTTGAATTCCTGGGCTCAAAGGATATTCTCCCTTAGCCTCTTGAGTAGCTG  
GGACTACAGGCATGCACCACCATGCCCGCTAATTTTTAAATAGTTTTTGTAGAGACGGGGTCTACCG  
TCTTGCTCAGGCTGGTCTCGAGCTCCTGGACTCAAGCAATCTCCCACCTCAGCCTCCCAAAGTCTGGG  
ATTATACACATGAGCCACTGCGCCCGGCTTAAATGGCTTATTAATAACATAATGAGTATTAGAAATGGG  
TGCTCAGTAAATTTTCACTGATCTCAAGATCCATGGATTGGCTAAACTACCGTAGATATAATTTCCACC  
CTACTTGAACGGCTATAAGAATGGGCATAGCCTGTTGCCCTCAACTAGTGCAATAATCCCTAAGGTAA  
GTCTTATGTGGTTTTGTATCCAGTTTAACTCCAAGGATTCTGGTTGCCTAATGTTGGCCATAGAAAT  
AATGGACTCTTGCTTCTGGAATATTACTATGTCTGCCCTTTCATGCAAAGCGGTGGTGGTGTGCTAAAGA  
GGCAGAGAGGCTTGTGCTGAACCTAGTTTATATAAACTATTTTGTAGTGTGCTTGTGCTAATCTATGTTCT  
ACAGATGGTGGCATTGTGTCTGGAATTTATTTTACAGCTTGGTAGTGAGGTGTGGGAAGAATAGC  
TAAACTTAACTCCATTTCCAGCTTGTTCCTGGCTACCATTTATCTATCAAAAAGAGAAACAACCTGTGTAAG  
ACTCACTTGACTTAGGTCTATTGCAACTCTTTGTAGGTGAGGGACAGAAATGTCATTTCAAAACATGTG  
AACTTCACTGTGGTCCATCTGGAGCCTGGAGGATTTTCCAGTGGAGAGTGTGTGACCTTTGCTGCT  
TTCAGAAATATCCCTCTGCAGCAATGTGGAGAATGAATCAGAAGGAAATGAGGGAGGAGGCTGGCAAGTG  
GGCTGGAAGCAGCTGCATGAGACAGGCCTGCCTGAGGGTGGTCTGAAGGAAGCCGGCTGACCGAGACA  
GACTGGCCAGCAGTAAGGAGTAAGTCAAGAGCACCTAATGAGAACTGTATGTAGCGACACGCATGAAA  
ACACCTCCTGGGCTCTGGAAAGAACCTACTAGGGGACAGGCCAGCAGCAGCTGCGGAATGTAGCT  
TCCAGTAAGGAAGCAGTACTCCAAGGTGGCTGTGAGAAGGCTAAAGTGGAGATGGCTCATTGGGAGGT  
GGGAACAGTATACGAGCAGGTGAAAAGGGCCGCTTACCGTGGTGTCTGCTCAGCTTATGTCCAGTGC  
TATCCCGTGACCTCCTCAGTAGAAATGGGGTCCGGCCAGACTTCCAGTCTGACAGTGACTATTGTAAG  
GCCGTGACGAGGAAGTGCAGAAACAGACAGCGTGTGCGCGCTGCCGTGATGGCGATGCGCAGAGTCTCT  
CTGAATGGGCAGCAGCCACAAGGGCAGTGTCTAAAGCAGGATCAGTGTGCAAAGACTGAGTGATGCGGCAA  
AGCATAGCTGAACCACGGACAACACCTCAAGCCCAAATGTGATTCAGCAGAGGTTCCAAGGGACAAGTG  
AACTTTTAAAGCATAATACAAATAGGTAGAAGAAAATCATTTTCTCGAAAAACACAGAATGAAATG  
CTAAAAATTAAGTAACTTACAGTAAATTTGTAACATTAGGCAAAATGATTAAACAAATGGAATAATGG  
AAAGCATTTAAATCAAAATTTCCCTTTGAACATTTTCCCAAGAGTACTACTCAAACCTCTTAAGAGCAG  
CAATACTGTAACCGTGAAGTACATTTCTCTGTTTATCATAAAAACGGCAGCTTGAATTTTGTAAAC  
CCATGGGTCAATTATCTAATTGACATAAGAAAAAATAGTAAATAGAGGGAGCTGGAAGAGAGTTTCCACAA  
TCTGCAACCAATTTCTCTCGGGCAAGAGAGGTGACCGAATCAACCCAGCTCGCGGGTGGGTGGGATGC  
TGTTCCCTCCTCACCTGACAGTCCAGGAGCAGCTTCTGCCTGAGATCACACTTTCAGGTTTTTGTAAA  
GTTTTAGTCTCTCTTCTGTGTCTCCAGCCAGTTGTTCAAGATCTGTATTTTATTTTACTCTCAGTGA  
TACTTTCTAGAAGTTGTTCTAAATGTTGTATCTAAGTGAATGTAAGATTACAAAAATGTTAAATGTA  
TGTTTTAAAGTAAATGCTTCTTCTCAGACTTTTCTGCAATTAGAGTTGCTTAAATTTCTACCAATATCA  
TTTCATGTAATAAGATGCTCTGATAACTTTTGAATAAAGATTCAAAAAATCAGAAAAACAGAGTTAAAGCTC  
CTCTTAGAAAAAATATCATATTTAAGGTGAAAGCTAATCTGCTGAGAAAGGTAGCTGTGTGGAGTTT  
CAGATGTATACAAAAATAAATGTTCCCAACATTCGATATTTTCTATTGTGTCATCTATTAATATATGTA  
AAGTGAATTAAGCAAAATTTCTTCTCAGACTTTTCTGCAATTAGAGTTGCTTAAATTTCTACCAATATCA  
AAAAAATAATTTATCAATTCAATAAAATAATCATTGTCTTTAATGTCTGTGATTCTCATTACATAATAAAT  
TTTTTATTAGGTATAATCATAATATACACATTTTTATATTCTTTTTTACATACATTATAACTACTGT  
GTCATGACATAATTTTTTTTTTTTTTTTGTAGACGGAGTCTCGCTCTGTCAACCCAGGCTGGAGTGCAA  
TGGTGCAATCTCGGCTCACTGCAACCTCCAGCTCCCGGGTTCAAGCAATCCTCTGCTCAGCTCCCTA  
GTAGCAGGGATTACAGGCACGTGCCGCCATGCCAGCTAATTTCTGTATTTTGTAGTGGTCAAGAAAAACA  
CCTGACCTTGTGATCTGCCCGCTCGGCTCCCAAAGTCTGGGATTACAGGCATAAGCCACCAGCCCCA  
GCCTGTCTGACATAATTTTAAAGGCTGCCCGGCCAGGCGTGGTGGCTTTACCTGTAATCCCAGCATT  
TTGGGAGGCAGAGGTGGGTGTATCACTGGAGGTGAGAGTTGAGACCATCCTGACCAACATGGTGAAC  
CCTGACTCTACTAAAAATACAAAAATTAGCTAGGCGTGGCGGCAGGCATGTGTAATATCAGCTATTTGGG  
AGGCTGAGGCAGGAGAATTGCATGAATCTGGGAGGTGGAAGTTGCAGTGAGCCGAGATCGCGCCACTGCA  
CTCCAGCCTGGGGAACAGGGCGAGACTCTGTCTCAAAAAAAAAAAAAAAAAAGCTGCCCAATGTTT  
CATCAAAATTAACAGTATAAATTCGATGAATATTCCTAGAGTGAATTAAGGCATGGTACATTTT  
ACAGCTGTAACAGTATGCTGAATTGAACACTCTGTGCACATCATTACTTTTTTGAAGGACTATCTACTTA  
AATGTGTAAGAGGTGACTTGTGTTAAGTGATAAGATTATTATTACGGTTCTTTACATTTTCCAAATG  
CTTTCCAAGAAAGTACTTAAGCCATTATCAGCAATGTATGAACGTGACAGCTTTGGGTTTTTGTCTTAT  
CTGATTAATTTTTTTTCTAATTAAGTGCAATTATGTACACAGTGTATTATTGAGTATCTGCTAATGATA  
TCTTTCCATGTTTTATTGCTAACTATAAATTTCTCTTTTGTGAATTGTCTGTTATGCTCTTTGTCCATT  
CATGTACTTGTATCTTAATGTGTAAATCCATTGTATGCATTCTTACACAGTAAACACACCAATTATC  
ATCATGATTATATGTAAAGTATTTTTTCAGGAATAAGTTTTCCGAATCTTTCAAGAGTCATGGAGTGAA  
AAATCTACCAAAAAGCCAAAGTGCAATTTTTCTTTTATAACCTTTTCAAGCTGAAATAGCTTTGCC  
CCTTTTGAACATCTGCTTTCATAGAAAATGTAAATCTCTGATCATTAGGAGTCTGACATAAATCTGA  
CATGTTCTCTAAATAAAATCCTCATCTTCACTTGCTAGCTCAATTTCCCACTAAGAAATCTCAATATA  
AGAACTATTTTTATATTCTTATAGGTACCAATGGAGAATGCTAAACATAGGATTTATAAAAGGGCTA

FIGURE 1, sheet 49 of 66

TAGTTGAGATGATTATTAGGCTTAATAATCAGTCAACTAATTGAACGCTTTTTTGGATTTTTCAGAAAGT  
GTGTTTCATAAAGGTCAAACCACACATCCAGTTGTGACGCAGGAACACACCTTTCTATTTCAGCATTCAT  
GTACACGGTGCCACTGGCGGTTTCATCTCCCCAGGTGCTCTGCAAACCTCCGTTCTTTCATAGCGCTTGCT  
TTCCTACATCACAGGTGCTTAGCTGAAGTAATGACTGGTTAACGAAGTCAACTATCCACTGTTTATAGTCC  
ATTTCCATTCTAAACTCCTAAAATAAGCAAAGTTAAACACCAAAGCAGTCATGAATGTTGGTCAGATCAA  
ATGGATTTCCTTTATGTGCTCGAGGGGGCACCAGCTCCCGTCCATTAAATCAAGGGGCACCTGTCAGGA  
GTTCTGTTCTACCTCCCCAACCTACACCAGGAGTTGGCTTTATTGGAGTAGGGATTCTTTGGGGAATT  
ACACAGAGATGCAGCTGCTTCAAATAGGCTGAAAAGTCAAAGGGGCACCTATGTATGGCAGTTGCTATCAT  
CTGAACCTGACCACGACCCAGGATATGACAAAGCTTCTGGGGGAGGCTGCCGTGCAGCTGTGCTGGAA  
TTCTGGGCCATCTGAGGGCTCACGGAACAACAGATGGGAAATAGGAAGTAAAGTCTCTTTAGAAAA  
CCCAGGACACCTTAAGGAACCTGTGTCATTTAGGCAGCTTCCCTGTTCTTCGGGGATAGTTAAGGCCTCT  
CAGGTGGCTTTAGAAAGTTGGGTGGCTTAAAGTTGTACAGCAATCCTAAACCCACCCAGGGCCAAAC  
ATTTCTGCCAAACCTGTCACTTACTGATTTTATCTCTGCAAGTTCTAGCACCTCTTTGGAGACACCCGG  
GGGTGACAGTCATGTGGTATGTGCTAGGTTGCTAGAGCCTGTGAGAATATACAGTGTAGACTTTTCGAA  
GATTTTACTACACACTGAAGTTAGGATGTGATGGTACATAAAAAACAAAATTCTCTGCTAATATCTTGCTT  
GGTGATTAAAGCATTCTTCTGCTACCAAGCTAGTTCCATCAGCCTGCATGGCTTAAAGCAATG  
ACCACACTTGTCACTCATCTTTGTATTCCAGTGGCCAGCATAGTGTGAGCACACAATACACGTTTGCA  
TGTGGCTCATGAAATGTTAATTAATCTACTTGAATTAATATCACAGAGAAGGCCACATTTATATCTA  
TTGTGAGAAGGATCTCAATATTTCTTACTCATTCTCTTACTCAAAGAACATTTCAATTAACACCTGTTAG  
AGGAAGGACGGTATTGGGATAGGCGTGTCTATTTTAGCAAGGTGAAGGATGGCCCTGGTCTCGAAG  
CTCAGTCAAGGTGGGGAGACAGGCAAATAAACCAATAATTATAAATGCATGATAGGAGCTACTAATAG  
CATCATGGAGACATCTAATCCAGGAAAGTCACCTAGTCTGGCTGGGAGAGTCAGGGGTGGATTTGCAAAAC  
AAGGACAACCTCGAGCTGACTATGGAAGATGACTAAGAGGACGTATACAGTTAAACGTGGGCCCTGGCATT  
AAGATGAGGTCAGCATGTGACAGATGATAAGGGAGAGCACCAAGAACAGTTAAGGAATCAAAGT  
CACTCTGTGAGGAGAGTCTGTGGTTATTGGGGGTGGTGGGATGGGGATAAAAAGGTGAGACCACAGTCT  
GTTAAAAGCTTGCTTGGATTGTCTGTGGTGTATGGGGGTGGCAAAAAGGAATTTAAGTGAACAAAAGCA  
AGTCTACTAACATCTCTCCAGAATCATCCACCACCCAGTTTCTACCCCTAGAATTAGTTTTTTGAAAT  
TATATCCTATGTGTCCCTTTGTCCAGCATTACCCTCTGATTAGCCTTCTTGTTCATGAAAGACTTC  
TGCTCCTTTTGCAATTTACCTTGTGCTTCTGAAGAAGATGTTAACTTGAGATGCAGAACCTTGGTGAAT  
GCACGGAGTCTTATCTGAAGTTTGTATGCTCCACATTGTTTCATCCAGCTAATCATTCTGTGATGCTTT  
ACGAGACGGCAATTTCTCCATTGAGGCTGTAAGAACAAAATGATTTCCATTAAATGGCTGCAGTTAAC  
AAAATGAATCAGAGCATCACTAAAGATGATATCTGGTTTGATAAAAAGGTCTTGCATATATAAATTATGCA  
TTACTCAAAAAAACAACCCAGCATTCAAACCTAGAATAAGCGACCCCAAAACAATGACATGACCT  
TCACATAAACTAACACAGTGGCAAAGATAAACTGAGAAATAAAGTAATTAAGCCTGATTCTCTCTTAAG  
AAAAATCCCATTGGAGGAGGGTCCAGTAATTAAGACTTATATTCAGTGGTGCCAGAGAAAAATAGGTAGT  
GTCAATGAAATTTAGATTCAGAGAAATAATTTAAAGAGTTAGAGCTAACAGTGAATGCATTAATTC  
AAATGCTGAGGCTCTAAAGACTTACCTGGTGAAGTTTTTCTTGAATATCTGGAAGTTGAGTTATGAGCAT  
TGTCATTTTTGTTCAAACTGTGCTAAAGAAGCTCTCAGTGTAGCTGTATCAGTTTCTTTCAGGTGAAGA  
AGCTGGTTCCCGATACTGATAACGGCAGTCTTCAAGGAGGATTTTTCATCAACTTCTTTGAAAACCTCT  
AAAGGAGAGTTTAAAAATTTAGAACTTAAATTAAGATATAGCAGAAAGTAAGAGTCGGAATAACTGCG  
TAGAGTCAACAAATAAACATAGTAAATATACGAATGTGTATACACACACACACACACCCCTTTTTCCT  
ACTGTTGGGCATTACATACACGATGGGGAACAAAAGAGATGGAATGCATACCCCTCAAGAAGCTTATCAC  
CCAGTGGGTTAACATTTTAAAAATAAGTCATTATTTAAATGGGGTAAGTTTTACAATAAACTATGGAAC  
CCAACAGAAAGTCACATTGAATTAATTTGCAACAAGTTTGAATTAAGTTTAAATGTTTAAATCTTCTTA  
TGAGAAATTTCTTCAAGTATGTTGAAAAAATTTACATTTAATAGCAAAGTTAGTAATCATAGCTACGA  
AGTATGAAAAATAAAAAAACAAGGAAAGTCTAACAGAAAGACTACGTTTCATAAATGCATGACCA  
ATAATCATTTTGTAAATATATTAACAAGAGTAATACATTTTATTTCCCCAAAATTTGGGGGATATTTT  
GAATTTTTCGAAAAAACCTCAAAACAATGGAACAAAAGCTTTTAGTAGAAATATCAATTTGT  
ACAATAATTTAAACTATGCATTATTAATGTTAACATTTATAAGTTAATAACCTTATAAAGTTGTTTTT  
GGGTCTTGATTTTTTTGTATTTGTAAAACATGACCTATGTGAGTGAAGTTTTTGGAGACTGAGTTTCAC  
TCTTGATGCCAGGCTGGAGTGAATGGCGCATCTCAGCTCATGCAACCTCCACCCACCGGTTCAA  
GTGATTTCTCTGCTCAGCTCCGAGGAGCTGGGATTACAGGCATGCCACCATGCTCGGCTAATCTCT  
GTATTTTAGTAGAGACAGGTTTCTCCATGTTTGTGAGGCTGGTATCGAAATCCCGATCTCAGCTGATC  
CACTGCCCTCAGCTCCCAAAGTGTGGGATTACAGGCGTGAGCCACTGCACCTGGCGCAAGTTTAAAT  
CAGATATATTTTATGGGGTCAATTAACAAATATTTTATTATAAACGAATGAACAGTATAAACAGTTCTA  
GGTTTGAAGAACACAGCTGCCATTGCCCCAGTCTTACCCTTATCCACAAATAAATACGAAGACTATCA  
CATCAACCTGATGCTTTTCTTCTGATATTTATTTCTGACCAGTAATTAAGTGAACATATGCTATTACAA  
CTTACAAAAAATTTGTTGATGTTGCTTCTGATTTATCCAGTCTGAGACACATTGAGGACTGTTCTT  
TCCAGTAATTCAGAGTATGCTGGGAAGATTCCAACCACTGGTTAACTGATCCGAATCTCTGTTATAACT  
AACAGGAGCAAAGTGAGAGAGAAGGCAGATTAGAAACATATTCTGATAATGATATGCATCACCAGCAAT  
TTTCTTATTTTATTTGATGCTCTCTATGTTGATCAGTCTTAACATTCAGAAATATCATGACGTTAATAG  
GATTATATCATGTTTTATACCATGATGCTCCTGGCATTCTTAGGACTCTTCTTATTACAGCTCAGCAAG  
AACAGTGAGGATTTTAGGCCAGATGTGGTGGCTCATGCCTGTAATCCAGCCTTTGGGAGGCCGAAAAA  
GGTGGATTGCCTGAGGTCAGGAGTTCGAGACGAGCTGAAAAACATGGTAAACCTGTCTCTACTAAAA  
AATACAGAAATATCCAGGCATGGTGGCAGGCTGTAGTCCAGCTACTCAGGAGGCTGAGGCAGGAG  
AATCGCCTGAACCAAGAGGTGGAGGTTGCAGTGAGCCGAGATTGCGCCACTGTACTCCAGCTGGGCGA  
CAGAGCAAGACTCTGTCTCAAATAAAAAAATAAATAAATAATAGGAAGTCTAAAGCATTTCTTTA  
TTTCTTATTACAGCTACAAAAAGTATACCAATGAAGAACAGAGATTTTATCCATCAAATGTCTCT  
ATAAATTTGTTATTTAATAAATATAGGTCAGGCACAGTGGCTCACTTCTGTAATCCAGCATTGGGG  
TAACAAGGTGGGAGGATGGCTTGAGCCAGGAATTTGAGACCAGCTGGGCAACATGAAAAACCCATT  
TCTACAAAAATACAAAAATTAGCAGGGCGTGGTGGCATGTGCTGTGGTTCCAGGTACTTGGGAGGCTGA

FIGURE 1, sheet 50 of 66

GGTGGGAAGATTACTTGAGCCAGGAGGTCAAGGCTGCAGTGAGCCACGATCACGCCACTGCACTCCAGC  
CTGGGTGACACAGTGAGACCCTGTCTCAAAAAATAAAATAAAATACATACACACACACACACACACAC  
ACACACACACACCATACATAC  
ACAACAAACTGCTGGCTGAACACCCCAACGTATTTGCCCGAGGTAGTGAAATATTCAAACAATATTC  
TGCCCTTCTTGTAACCTTTAACTGCCTTAGATTAAGATGCAGGGATGAGAATGATGTTTAAATGTTCTA  
TGTTCCTCCTCCTCCTCACACGGTTCAAGATTATACCACTAAGCACACAAATTTCTCAAAGAACTCAA  
AAGCCTATTTCAAACCTATTCTGTAGCTAAATCATTTAATTTTTTAAATTTTAAACCTTTTGGAAAGAG  
CAATATCATGGTATAAAGGTAACTATATATTTTATAACATAATTCCTAGCTTCTATAGAAATGTGT  
AAACTAGCTGGGTGCAGTGGCTTACACCTGTAATCCCAGCACTTTGGGAAGCTGAGGCAGGAGGACTGCT  
TGAGGCTAGGAGCTTGAGACCACCTGGGCAACAATGTGAGACCCCATCTCTACAAAAAATTTTATAAAA  
TTAGCCATGCACGGTGGCCTATGCCTGTAGTCACACCAACTTTGGGAGGCTGAGGCAGGAGGATCGCTTGA  
GTCCAGGAGTTCAAGTTGTCAGTGAGCTATGATAGTGCTGCTGCACTCCATGCACTCCAGCCTGGGTGAC  
AGTGCAAGACCTTGCCCTCTTAAAAACAAAAAGAAAAGAAAAGAAAAGAAAAGAAAACGATCACAGC  
AAACTGATTACATGTTTACTGTGTCTAGCAAAACCATCAGAGATTCTACATCGCGTTTAGCCAGAAGAG  
GGACCCAACTGCTTTAGACTGCCCAAGAAAAACAGCATAAGGTGGGTGTCAGGTAAATTTAGTTGACT  
ACAGATGCTTCAGGCTCTTTCTTACAGCACAATATGAAGCAATCCACCCCAAAAAGGCTGACCTGAG  
CAGATGCTTGAGAAGAGCTTGACGCTGTGGAGCTCATGGTCAATTTTCTTGTTCAGGGACAACCCTGCT  
TCTTCCAGTTTTGCGATCTGGCCTCTAATTCAGGACAGCTCACAGACGCCACCACTGTTTGCCTTCGT  
TCAGAGTTTGGTAAAGCCGGCGTGTTTTCCACCAATGTTTCTTTTATTTGCTAATAAAAAGTAAAGTC  
ATAGATGCTTTAGTAAAGTCTGCAAGCTTATTCACAAATCTGCACTTTAAACCTGACATTT  
GTGTCCACTGATAAAACAGTAACACTTTCCCAACATTCAAGACTATATAGTCTGACTGGATGCATGATTA  
ATGGTTTTATTGGTTACCTTTCATGATAGGTGTCCAATCTTGCACTTCTAGAGCACAGATTCAACTTTGT  
GACTTACTGGCTGGATGCAGTGGCTCATACCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCAGATC  
ACCTGAGGTTCAGTTCGAGACAGGCTGACCAACATGGTGAACCTCTCTCTACTAAAAATACAAAA  
AATTAGCTAGGTGTGGTGGCGCATGCCTGTAATCCCAGCTACTTTGGGAGGCTGAGGCAGGACTTGGTGGC  
GCACACCTGTAATCCCAGCTAGCCAGGAGGCTGAGGCAGGAGAAATTGCTGGAACCCAGGAGGTAGAGGCT  
GCAGTGAGCTGAGATTGTGCCACTGCACTCCAGCCTGAGCGACAGAGCGAGACTGTGTCAAAACAAAAACA  
AAACAAAAACAAACCAACCAACCAACCAACCAACCAACTTTATAGACTTATGTCATACAAACAAAAACAAGC  
TGGCAGTCATTAGGCCATGCTGAGCTCACAGATAGGTTTTGTGTGACCTTAAGATCAGTTTGAAAAATCA  
GGAAATCTTACCTAATAATCAGGATTGCCAGTGTCTGTGGGAAACCTGGAAGACCTAGCAATTGTTGGTC  
TGCATCTCATGTGGCAAAGGGCGGCTGTAACCTGAGCAGCAGCTGCTGGCTCTAGGAGAGCCTACTCCCTC  
TCCTTTTCCCTTGGCTCAGTCCCAACCCACCCCTCTGATTGTCAGAGCCAGTAGGGTTTCCTTATTCTAT  
CTGCCCCCGAAAGCACTTCAGATGGTGACTTAGATATGAAGAGGATAAATAAAATAGTATTTCTCTATTA  
TCCATGAGATGCCAATACTAGGAGAAAAATTCATTTCCAGGGTCTTCTACTGAATATAAAGATTCAGTA  
GAGAGAAAGGAAGAAAACTTTAGAAAAATAAATTAACACAGCGTATCATTAATCCAACCTTCACGGAAAGA  
AAAATGAAATCTTTGAAGAGAGTCTGTCTAAAGGTAATTATCAACACAGCTGGATTGCAATAGGCC  
ATTTATCTGACACCTGTTAATCTTAAAAATAAATATTAACAAAAACAGAGGTTTGCTATTTTCAAA  
TTAAGTTAAGCCTTTTAAATCATTACCAAAAAATTCACGCTCCATAGCCCTTTCCACCACTCCCATTGT  
AATCCCCCTCCCCCGTGTCTGAGCATCTGTATTAAGAAAAAATAAATCAGTCTAATTTTCTAAGTGAA  
GTGCTAGATTCTTCACTTTAAACATCTCTGAAAAGTCTTAATTCACCCCAATTTTCTTTTCTTTT  
TTTTTTTTTGAGATGAAGTCTCGCTCTGTCAACCCAGGCTGGAGTACAGTGGCGCTATCTCAGCTCACTGC  
AGCCTCCGACTCCCGGGTTCAGCGATTCTCCTGCCTAAGTCTCCCAAGTAGCTGGGATTATAGGCACGT  
GCCACCACACCCAGCTAATTTTTGTATTTTAGTAGAGATGGGGTTTTACCATATTGGCTAGGCTGGTCT  
CAAACCTCTGACCTCAGGTTATCCACCCACCTCGGCCTCCTAAGGTGCTAGGATTACAGGCATGAGCCAC  
CAGCCCACTGACCTAATTCACCGATTGTATGCTAGGGATACAGTCTGTGACAGAGTAACCTAGGCTGAGCCAG  
CATTTGAACACAGGTTTGTGACTTCAAAGGCCAGACAACCTGACTCCTAGGTTCCATGCCCCACAGACGA  
CGGCTGATCAAGATGACAACTCTGTGAGCTCACACAAACCTTTCTTGTATTCTGAAGTGAAGTGGCT  
TATGAAGTCCATATGTGAGATGGGCTTTACAGGATATGTCTTCTTAGTCTGGCAAATTTATTTAAAGCT  
CTTAGAACAAATTTTTCTTTTAAATATTTCAAATGTAATAGAAATCACACATTTTAAACAGATATGGTAC  
TTTTGGAGAAAAAATCACACTCATATTAGGTTGGCTAATATTAGACTGTTGCTTAAATAATAAGCCTT  
AAAATACTGTTCTCATCTGCATCTTTTCTGCTGTTAGATGATACCTTCTGTATCCCTAGACTAACAAAG  
AGCTAAACAGTACTCTCATCACCCCACTCCCAACCCACCCAGAGACTCAGATTTACCTTAGAGTTAGG  
CTCAATATAAATAAGGCGGCAATGAGACCAACTGTAGCTTTCAGGCATCTAGGAGATATAAATACA  
GTGTCCAGCCTCTGGAAATGTTCTTATAGAGGTTAAATAACCTCCATGGAAAGAGAACCTGGAAT  
TATTTCTGCTTTCATTTTCCAAGTAGTTCATTACAGGCAATAAATGTGCTTTTGAGGTTTTAAAGTTGAT  
ATTTCAATAACTGCCTCTAGCCGCACAACCTCAGATTTGACGGCATATATCTTAAAGTTAAACCTAGGAAT  
TTTAAGTTCTGGTGAGAAAGACTTAAACCTTGTTTTATCTTGTGGTCAATGTTCTCAATGTCACTTGAA  
AACTATTTTGAGGTTTTATCTTTCTTTTCGCACCAAAATTAGAGACACAGAGACAGATGATAACACGCA  
AAAAGTTACACAAAAAAGTTTAAAGTTTGAGGGTTTTGTTTTTTGTTTTGAGATGGAGTCTCGCTCT  
GTCAACCCAGGCTGGAGCGCAATGGCATGATCTTGGCTCACTGCAACCTCCACCTCCAGGTTTAAAGCAAT  
TCTCTGCTCAGCCTCCCAAGTAACTGGGATTACAGGCACATGCCGCCATGCCAGCTAATTTTTTTT  
TTTTTTTGTATTTTAGTAGAGACAGGTTTACCATTGTTGCCAGGCTGGTCTCAAACCTCTGAGCCAG  
GCAATCCACCTGCCTTGGCCTCCCAAGTGTCTAGGATTACAGGTGTGAGCCATCGTGTCCGGCTGAGAT  
GTTTTTATAATGCTGGTGACAGGTAAGATTATGTCTGTCTTATGGGCTACGCTAGTCAGGACTTCACT  
GTAGGAATAAAACGAAATATATGTTTAGAGGCCGAAGGCTGACAAAGTTCTTTCCATTCTTCAGCTCAT  
TCCATACTAGTAGCTCACTGGCATTCACTTCCAGAGACAGGTAGAATTGGCTCGATTATCTGCATTCCAC  
AGATAAGAAATTTAGGCTTAGGGACAGCAAGGTCACAGAAGTGATAAGTGATGGAGCCACGACTCAAGC  
AAGGTCCTCTCCCCAAGCCAGACATGTGGTTATGCTAAGGAGTTTACATTCAAATCTGTAGTCTCCCTG  
AATACATTCAACAGTGAGTTGTATGATGAACATTTGTTTCAATTCAAACCTTCCAAATCAAGCCCTTA  
GTCAAAACAAATGTAACACAAAGTGCTATGGACACGCTTTGATAACTTAAATGGAAGACAAATACCT  
GGTAAATGAAATCCTTCCACTAATCTTCTCTGTTTCTTCCACCAACTCACAGAGGGCAATGTAGA

FIGURE 1, sheet 51 of 66

TATAAGAAATTTCCAGGTCCTTTTCAAGAGATGCATAGTTTTCATCAAAATCTTCCCATTCTAGAGAATC  
AAGGACATAAAATAGTGGAGCCCTTTACCAGATTGGTTCCAGATAAACAACATAAATTAATCACAAAACA  
AAAATGAACCAAGACCATACAAAATTAAGCACAGATTCCAGGTGTGTTTCGAGAGACGTAACCCACC  
CTGGTAAGCGCTCAGCATCTAATGGAAAAGAAATCCATCACCTTTGAGGACAAGGTTTAAAAAGAATCTG  
AGTTGGCATTAGTGTGTTTATGCTTGTCTGTCAAACCTGGGTAAACATGACTAAAGGAGTAATACAATGAA  
GTTAAAAATGATACTCTTAGCAACTCCGTAGAGACCTTGAGGCCACAAGAGAGCCTTTCTCTTATTAGGAA  
AGGGAAGAGCTAACTTTAGACCCTTACTCAACAGAAGCTATTAGGCTGCTCCTGCTCTCAAGCCCCAC  
GCCCAAGCCACGCAACCCCATGCCACTTGCAGCATAGGTCTGCTCAAGGTGTCTTTGAGGAGTATAGG  
CTTACACTTCATCAGGGGAGGACAACCTGCCTTAGCCCTAGTCTTGTCTATCTTTAGCTTGCCCCGTTTCC  
ATGGATGCCACCCGAGGACCCCAACACACCACAGAGCTGAGTTATTGACTCCAAACATTGTCTGTTAG  
GAAAAGAACCACCTCACTCTTTTCCATATCTATTACATAGTGGCTCACTTGGCTTTTATAGAACACTCA  
CTGGTCCATGGAGTCTTTTAAAAAATACCATGACATATTATAAATATCAACTTGACACACTAACTAG  
AAAAATAATTTTGTAGCAAAAAAATAACACCATATTACACTATCAAGTTAAACATTTCTTCTCTTTT  
TCTTTTTTTTTTGGAGACAGAGTCTCGCTCTGTGCCCCAGGCTGGAGTGCAGTGGTGCATCTAGGCTCA  
CTGCAAGGTCTGCCTCCCGGTTTCAGGCCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGC  
GCCCAACCCACGCAACCCAGCTAATTTTTTTTGTATTTTATGAGAGACGGGGTTTCACTGTGTTAGCA  
GGATGGTCTCGATCTCCTGACCTCGTGATCTGCCCCCTCCGCCTCCCAAGTGTGGGATTACAGGCGT  
GAGCCACTGCGCCCGGCTCCTTCCTATTTTATTTCCTTAAAGTACTAACATTGGCTATGAAAGGTGTGA  
GGGAATGCCTCAAACTGAGAAGGAGCTTTATGCATGCTTATTTTTCTTTGAGTTTAGACAAGATTG  
TCATCTTCTTCAACACTTGGGCTGTCTCTTGAAGAAGTACAGTTTAAACCAATAACTGTTTAC  
CCAAATGATCTCATTCAAGGTCTCAAAGTGCTTATCGTTTTGCTTATTCATACATGAACCTAAAAGGCAG  
AGAGACGAGTACCATCCCAATCTATGTATGAGAAATCCAGCCAACCTTTCTTTCAGGGAGCGGCCCTC  
AGAACCTGAGCAGGGGTCCACATTCTCTCACTGTGAGGCTTCCATTAACTATAGCTTAATGATAACTAGA  
TACTTCTTCTCAACACTTGGGCTGTGATGGAAAATCAGCAATCCCACTTCACTACAGCTTACAGTTAGCA  
ACCCAAATACCTGCAACAACTCTGCAGCTTCATACCACATTGGCGTGACTTTTCTTCTAGTATTTAAC  
TTCTGTACTTGTCTGCCCAAAATGTCTCTGTTTTGCAATAAAGAAGGAAGTATTTTGGCAGAGTAT  
GCTTGGATCAACAACATGTGAGCAACAAGCTTCTGGAaaaaaaacCTATGAGATGGAGAAAGTTTAAAT  
TTACTTTGAAATGTGAAACCTCTTAAAAACCAAGTTACTTCACTTTATATCCAGTTATTTTTGTTTTA  
AATCCAAATCCAGGACATCCGTGTAGAGTCAAATTGACCAGCTGGCCAAGATGGCAATACAAAAATT  
AGTAGGATGGTGGTGAATGCCCGTAATCCAGTCATTGAGAGACTGAGGCAGGAGAAATCATTTGAAC  
CCGGGAGGCGGAGGTGCGAGTGAAGCCGAGATTGTGCACTGGACTCCAGCCTAGGTGACAGAGCAAGACT  
CCCTCTCAAAAAGGCAAAAAACAAAAACAAAAAACTCAGTCTTTGAACACTAGTGGAACCTTCAACA  
AATTATAAAGTATTACCCTTAGGTGTTATTTTCCACTAAATAATCCATTTTAAATGACAAAACATTTTGT  
CAATTTCAATTTCCAGATAGATCTTTCTAAATCAGTTGTTTTGAGTCTAAATGTACAAAAAGATAGATG  
CCAGCTAGGTGTGGTGGCACACATCTATAGTCCAGCTACTCAGGAGGCTGAAGTGAGAGGATTGTTTGA  
TCCAGGATCTCAGGCTACCAATGAGCTATGATTACCACTGCAGCTCCAGCTTCAAGAAATACAGAGTGAGA  
CCGTGTCTCTTAAAAAAACAAAAACAAAAACAAAAACAAAAACAGATGTCACTGTGGCTGA  
TGAATTTCAAGCAAGTTGGATGGACAGATGTGCAAACTCAAGCAACCACATATTCGAAAGACAGGTCT  
CCTTAACCCCTGGCTTTAACTTCTACTCAAGAGAATGACTAAATAAAGGGAATTTGCTGCTTTATAGGAAT  
CTTGACATATAAGCTTCTCTGTTTGTATTTGAACTTCAAGAACCTTTCAAGAGGAAGGCTTTATTTAC  
ATGGTCTTCTCTCCATTTACAGTTGTCTGGAGGGATCCCTCCATATTATGTGAATCCCTTCTCCTAAGCCT  
TGAAAAGGACATATACATAGAGAGCTTTATAAAGCATCTAGCAAGGGGCTAGCACACTGCAGATAATC  
AATATTATTTCTCCTCTTCCCTCCATCCTTCATACATATTTACCTTTCAATTTTCTTAGACTAAGC  
TCTACCTTCAAAATGCTAGACCTAAGCTTACCTCAGGTAGGAACCGTCTCACACTTTTAAATATGAGC  
CACCTAGATTACTCTTTATCTTTAGTTGGTGTCAAGAAGTTTTTGTTTAATGAAATGAATTTTAAAAAT  
CAAAGGATTTACTATAGCTTATACTACATAATAACACACTTTCTTTTGTATTCTAGTTCTCAGGAAAGC  
CTTTTCTCTTTTTTTTTTTTTTGGAGATAGAGTCTTGCTGTGTGCGCCAGGCTGGAGTGCAGGGGCGTG  
ATCTCAGGTACTGCAACCTCCGCTCTGAGTTAAGCAATTTCTCCTCAGCCTCCAGGTAGCTG  
GGATTACAGGTGCCTGCCACCATACCCAGCTAATTTTTGTATTTTGGTAGAGACAGGGTTTACCATGT  
TGCCAGGCTGGTCTCGAATCCTGACCTCAGGTGATCCACCCGCTCAGCCTCCCAAGTGTGGGATT  
ACAAGCATAAGCCACTGCGCATGGCCAGGAAAGCCTTTTCTAACTTTCTAAGTCACCTTCTGCTATTAA  
ATGCTCTCATAGAATGTATCTCATTTTAAATTTTAAATTTGTTTGAAGACTTGTGATAAATATCTATCT  
TCTCAATCAGGTGAAAGCTCTGTGAATGTAAGGAACTGTGTCTGTTTTTACTCATAACCCAAATTCCTAG  
CATGTACCAGGGTTCTTGGTACACATTAAAGCATCTAATAGATGTTTATTAAGAATGAATAGCTTAAA  
TTTCAACAAAGAAGAAAATGGATCCTTTCTGTTTCACTTCAAGAAATACCTTAAGATTTTAGTCTATGAA  
GGGTCACCCGACCATGTGTCTGTCTCACCTTGTGATTTTCTATTGAGCCTGTAACGCCACTTTACTT  
TTGGTTTGTTTAAGTGCCATGAGCAAGCTTTTCTTCCCAATCTTACCAGTTCACCATGCCTTGCA  
ACAAAGCATCTTGTGCTCTCAGTGACGAAAGGGCTGTGAGTTCTGTGTACCTGGCTCTTAGCATTGCC  
CCACATACTGTCAAGTACATCTGAAAAGAGAAGAGCAGGTGCACACATGCATTTTCACTCAACCGGGGC  
AATAACTGAAAGACAAATCTAAACTCTGCTGGTGGAAAGAAAGGATCTGGCTCCTCACAATCAGAGTGT  
GAGTCAATGTTTTCTGCTCAGGCATACCTCTAATTTGTAACCTCCTGGAGTAAAGCATAAGGTAAATGA  
AGCCTCTCCCTTCATCTTAGTTTGGCCACTCGGCTCTCGGCGTTCTCCAGCTCCACTGTATATGCAT  
CTGCTTTCAAGTGAGAGACAATAACAAGAAAAGAAAACCTTCAGTAAGTCAGAGAAGTACACATAGTTA  
CTTAAAGAGTAACTTAAATAGTACAGAAAGGAGTGAAGGAAAAGCAAAAATCCAGCTCCCGCTCCCTCAG  
CTCCTGCTCTCCTTAAACATCTTGCCAGAGGTCCCAAGTTCCTAACATGCTCCATACCAGTAGGGGTAGA  
CATGCATATCCCTAAACTCAATGAAGTGCACCACAGCATCTGTCTGCGGTTAGCATTCTCTACTCACC  
AGCTCTTTCAGCATCTCTTACATTGGTATACATATCTAGCTCCTTCGAAACAGACACACAGCATGCTA  
TTGTAAGGTTTACCTGCTTTTGTATCAGTCAGCTCTCAATGGACTTTTGGGCTATATACAGTTTTTA  
ATTCAAGCAGAGCTGCTGGGTCCATCTTAAATATTTATGACTTATTTATTTATTTATTTAGAGACAAA  
GTCTGGCTCTGTACCCAAAGCTGGAGTGCAGTGGCACAATCTCAGTTCACTGCAACCTCCGCCCCCAAG  
CTCAAGCAATTATCACACCTCAGCCTCCGGAGTAGGTGGGACTACAGCCGTGTGCCACTGCACCTGGCTA

FIGURE 1, sheet 52 of 66

ATTTTGTATTTTCGATAGAGATGGGGTTTGCCATGCTGGCCAGGCTGGTCTTAAATTCCTGGCTTCAAG  
TGATCCACCTGCCTCAGTCTCCCAAGTGCTGGGATTACAGGCGTGAGCCACCAACCTGGCCAAAATATT  
TATCTTTATGCATTGTCTTATATCCTTAGGAGGAGTACAAGTTCAGCACTTCAAACAGTGCTGGAACAT  
AGTGGATCCTCAATTAATATTTGCTAAATACATGAAGTCAAATTATTGCTGGAAGAGAGAGATTTCATGT  
TTAAATCTGATATACAGACAAAGGATCCCCAGGGCTCCCCGGCAAGAGGATGAGGGTCTCATTTTCC  
AATACCCCTTACCAACACTGGACATACACATTTTGTCTAGGTTGATAAGTGAAATGGCTCCTTTTGT  
TAATACATTGTGCTTCAGAAAATTAGGAGATGTTTTAAAAAGTCAACATAAATAGTTCTCATTTTTTAT  
TTATTTACTTAAAGCCTTGTGCTGCTCACAAAGGAAAGTAGTTCAGAAGCACGGCTTATATGCAAAGCTC  
TGTGGTTCAAAGTTAAGTCAGTCTGAATTATTTGACTTGATTACCTGAAGCTGTTGAGCAACACTCTGC  
CCACTGATTTTCATTCAAAGACTGTTGTAAAGATGCTTACTCTAATGAGCTGATGATATAATCTCTTTA  
TTTCATTCTGTAAGATAAATGTCGGAACCTGAGCAATCTCATTAGGCCTTCATTATCTTTTTTATATT  
TAGTTGGTTTTTATAATTTTTGTGACACTGAAATTTCAAACAAATACAAAAATAGAGAAATCCCCATT  
TATCATCATTAAACTTCAACAATTATTGATTCATGGCTGACCTTCTTCCCTCTACATCTCCCTCCAGCT  
CTCAACTGTACCTAATCTCCTTTCCTTCAGGCTATTTTGAAGCAAATCCAGGTCTCAAGTCATTTTCATC  
AGTATACGTTTCAGTATATATTTCTAAAGATAAAGATCCTTCTCTTACTCCAACATACTCCTCCCCTG  
CAATCAATAAATTCCTTAATATGATTAACTATCCAGACAGAATCACATATCCCTAATTTGCTCTATAA  
TTTTCTTTTTGATTTGTTCAATGATGATCCAAATGAGGTCCACATGTGATGAGATAAATACATCTT  
AGATCTCTCTTAACCTGCAGAATCCCTGACCCTTTTTTGTCTCTGAATGTGTGATGTGAAAAATG  
GGTCATTTGTTGAGTACAGTTTCCACAGGCTGGATTGGCAGACTGCCTCCAGTGTGCTGTTAACC  
TGTTCTTTTTTATAATTTTTGTGACACTGAAATTTCAAACAAATACAAAAATAGAGAAATCCCCATT  
GGGCAAGCCTCATTCAAAATAGTATTGGGTTTCATTCTTTTTTATTAGATAATTTTAGTAGCTTCCTA  
ACTCTTCTACCTGCCTGGAGTCTCTGCCTCTCCAATTCACTTTAGACAACTGCTGGAGGAATCTACCTGA  
AACATACACGGATTGTCATTCTTAGCTCAAAAACCTTAATGGCTCCCTCTAGCTAGAAAAACAAAAACA  
AATGCCCTCCCGCCGCCACCAATTTTAAATGTTAAATGGCTAAATGTAATACAAGAAATGAAACATTATT  
TAGCTCATCCTAACAAATCTTACTCAAGACTCTACTTTTTTATTTTTTACTTTTTTCTTT  
TTTTGAGATGGGATCTATGTTGCCAGGCTGGTCTTGAACCTCTGGGCTCAAGCAATCCACCTACCTAGG  
CCTCCCAAGGCTGCTGGGATTACAGGCTAGGCTACTACGCTCGGTCAAGACTTTAAAGGGCTTCACCTTT  
TTTTTTTGTAGATGGAGTCTTGTCTCTGCCCTCAGGCTGGAGTGCAGTCTGTGTGATCTCAGCTCACTGA  
ACTTCTGCCTCCAGGTTCAAGCAATCTCTGCCTCAGCTCCAGGTAGCTGGGATTACAGGCACACA  
CCACCATGTCCGGCTAATTTTTGTATTTTAGTAGAGATGGGTTTCCACCATGTTGGCCAGGATGGTCTC  
AATCTCTGACCTCAGGTGATCCGCTGCCTTGGCCTCTCCCAAAGTCTAGGATTACAGGCGTGAGCCA  
CTGCACCTCGGCCAGGCTTCACTTTCAAATGATCTCCAACCATGAGCAACAAACAGAAGAGTCTCATCAT  
TTCCCTTAGCAATCTTTATTAACAAATGTCAACAGGAATAGGAATAGGCATTAGGGGTTTCATGCTGTAA  
TTAAACAGTGCCAAAATAGGCTGTGTCTCGGAATCATACCTGGTAACTGCGGTGTAATCGAGGCCAG  
CTTTAGGGACTTGCTTCTACAGACAGCTGCAGCCTGAGTGTGCTCCAGGCAGACTTGAAGGTTGTCAA  
ACATTCAAGAGAGCAAGTTGGTGTCTCGCCAGGCCAAGTCATGGCTTCAAAGATACCCCTTCTGTCA  
CTTAGCGCTAAATAAAGTTTCTTCACTCAAGAGCCAGCGCTGAGAGTGGAGAGGAAGGAAGACAATGAA  
TGAGCTCTGACCTCAAGAGGCTTCCACGTGGGCTTAACCTACGGGGCTGCTGTAATGGCCAACACATGGG  
CTCGTGAGAAGTGCCCTACCTCGTAGTGACCTGCTGGCCAGAACCATCCTCCTGTAAAGTCTGGGCAT  
TAGCAAGAGTACCTCCACACTGCTGAGGCATGACTGAGGCTCAGGAATAGTTCAAACAATTTTTTATCC  
AAATTGATATATGCTTCTCTGTCATATTTTCTGAATCAAGAGGAAAAAGAAAAAGAAATTAAGATA  
CCTTTGCTTCCCTAGACCTATATTTTGCTTAGTTTCCATTATAGTTTATGATTATGTTATGCTTCTTT  
GTAATAAGTTGCTTCAAACGCTTGTGAACCTAGGTAGCAGAACAAATAAACTTACGATGTTAACT  
TGGAGAAATAGATTGAAGAGGCTCAACCTTAGGTAGTTATTGAGTACTGCATGGAACATAAGGTA  
ATCATGAGATGAAGGATCCCTTAGCAGGGCGATCCAGGTGAAAGTGTGGTCCAGATAAATTACACTGTC  
TCCTTTACCACTGTTTCCACCTCCACATTTAATGTAGGAGAAAGCGGTTAATGAAATCAAGTATAGC  
TGGGAGAAGGAAAGAGTGCACAAAGAGAAGCTTGAAGGGGTTGATTACAAAGAGGAGGTACAGTGTCT  
TAAAAACAGGACAGGCTGCAGAGGAGGGGAAAGTGCATTTAGGCCGATGTGAGAATCAAGGCT  
AGGTGTATGACTCCAAGCACGTCCCCAGTGTGATGCTGCGCTGGTGGTCTGGGAGCCACAGATCTG  
TTTTAGCATAGCTGCTGGGGCCACCTTTTTCTTTACCCACAGTTACCCTGAATTTCTGAACAGTTAT  
AAGTAGTTTAGGAGCATGCCATAGCTAGTCTCACTCCAACCTGGGGCCTGTCTCTACTATCTTCTCTG  
ATAGACACCTCACATAACCTAGCATTAATTACCTCAGTATTAAGTCTGCTCAGGTTGAAAACCATGCCCT  
ATACTCCCTCCCTACTCTCTCTTCAACCTTCCAATCCAGATCACCCTGCAGACGGCACTCATCAATC  
ATGATCTCTTTCTGCTGATCTGGACTCAGAAATCCTTGCACACAGTCCCTAGGGAACCACTACAAAA  
TATATTAGAGTTGGCAAGCAAGATCAATTTCAATTTGCAATCCTAGGACCCATTCATTATGTTTCTTTT  
ACTTGTTCAGTGACACAATTATGACCAAGTCACAATGATGATATCTCCTTTGTTTATGTTATTACAATG  
AGGAAAAACATTTGTGTGACGTTCTACCTGTGTCTGAAGGTTACTTGCTTCTTGGCGCAGGTCTTCAAG  
TTGGGTGGTATAGGTTTTAGTTCTTCAAGTTGTGGGTATCTAAAGTTATACATAGTCACGCTGGGTAGA  
ATACCCATATTTGTGGAACCTATTTGACAAAGGAAACCTATTACTGACAGTTTATAGACCTGCTGAT  
GTTAATTAATTTATTTTTATTTTCGAGATGGAGTCTGCTCTGTCGCCAGGCTGGAGTGCAGTGGCA  
TGATCTCCTCTCATGAAACCTCTGTCTCCCATGTTCAAGAGATTCTCTACCTCAGCTCCCGAGTAGC  
TGGGATAACAGGTGCTGCCACCATGCCCGGCTAATTTTGTATTTTATAGTACGACGGGGCTTGGCAT  
GTTAGCTAGGCTATTCTTGAATCTGTGACCTCAGGTGATCCACCTGCCTCAGCTCCCAAAGTCTGGGA  
TTACAGGCTAGGCAACATGTCCAGCCTGCTGATATTAATTAATAGAAAAAGATGCCTTAGCATGCT  
GCTCTTCTGAGCCACTTTCTTGTGAACATTTTTGTCTATCTTGCCATTATAAGAAAAAACAATTAAGTT  
TTAATATTTTGGACAGCTTTGAAAAGTCATGACTAGTTATATTTAGATACTTGAGGTTTCATTAGATAT  
CAAAATGAGAGGAAAGGCTGGGCTTAGTGGCTTATGCTTATAATCCTAGTACTTTGCAAGTAGAGGTGG  
AGGATTCCTAGAGGCCAGGAGTCAAGGGAGTTCAAGACCAGCTGTACAACATAACAAGATACATTCTC  
TGCAAAAAAATAAAAAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAAATAA  
TCCTAGCTACTCGGAAGGCTGAGGCAGGAGATCGTTTGAAGCCAGGAGTTCAAAGCTATAATGAGTTTTG  
GTCATGCCACTGCACTCCACCTGGGTAAACAGCGAGAACCCTGCTCTTTTTTGTAGACGGAGTCTCGCTG

FIGURE 1, sheet 53 of 66



TTGTCACCAGGGCTGGAGTGCAATGGCACAATCTCAGCTCACTGCAACCTCTGCCACCTGGGTTCCAGCA  
 ATTTTCCTGCCTCAGCCTCCCAAGTAGCTGAGATTACAGGTGCCACCACCACCGCCAGCTAATTTTCGT  
 ATTTTGTAGTAGAGTGGGTTTACCAGTGTGACTAGGCTGGTCTTGAACCTCTGACCTCAGGTGATCCA  
 CACCTCTCAGGCTCCTGAAGTGTGGGATATAGGCGTGAGCCACTGCACCTAGCTGAGACCTGTCTCT  
 TAAAAAAGGTTGGTGTGTGTGTGTGTGTGAAATCATTAATCTTTCAGTTTAGTAATAAC  
 AACATTCACGCTACAGGGCTAGCTGCTTATTTACAGTTTACTTTTGACACAGCCAACCTATTAGAAATAGA  
 ATTCAAGTCTCTTCAAGGGATGGGTTTGCATCTTGATTGTTATTGAAAAGCTAAATAAGTACTGAAAA  
 TGAGCTGTGATTTTCAAGGGTGAATGATTCAGAATTAGCTCCTTTCTCAAACCTGGAAAGCTGACAAATA  
 AAATGAAACAGGGTGAGTGGTAGATGACTCTGCTTGGGAAAGAACTAATAATGAGTGGAGTTCTCCTG  
 TTTGCAAGAGACCTATGTACACGTTACAGTGTAATATGGAGAAACCAAGGTTAAGGGCCAACCTGATGAGT  
 TTGATTGAACCTTAAATGGTCAAATAAGTCTTACGGGAAAGAGGACAGCTGAGAAGTCTATCAGAC  
 TGGGAAATTTGGGAAATCACGGGTAACCTTTGCCAGGCAATGTGAGTATGTGGTGGAGGACAGAGCCTG  
 CCTGTGCGCAGTGGGCTGTTTTGCTCACCTGCTCCCTGTCTGGAGAGAGACAGTAGTACTGACACAG  
 CAAGCCAGCCTGATAGAGCCTGTGACGGCAGTGATAAGGAGGGCCAATCACAGGGAACCCGATTGGCCA  
 GTGCCATCGGCACAGGCGTTGGCACATGGTAGATTCCAAAGAATTTCTGATGAATGAATGACACTCATT  
 GTAGCCTGTGATTTTAAAGTGTGTTTTTTTTTTTGGAGACGAGTTTCACTCTCGTTGCCCTGGCT  
 GGAGTGCAATGGCGCATCTCAGCTCACCATACCTCCGCTCCAGGTTCAAGCAATTTCTCTGCCTCA  
 GCCTCTCTGAGTAGCTGGGATTACAGGCATGCACCACCAGGCCAGCTAATTTTGTATTTTAGTAGAGAC  
 AGGTTTTCTCATGTTGAGGCTGGTCTTGAACCTCTGACCTCAGGTGATCCACCTGCCTCAGCTCCCAA  
 AGTCTGGGATTACAGGCGTGAGCCACCGGCTGGCCAAGTGTCTTAAATACATATTCATCTCCTT  
 ATTCATTCAACAAACAGTAACCTGAGAGTCTGTGATGCTTAGGTACGGTGTCTGGCACTCAAATGCAAAC  
 CAGGCAGACATGATCTGTCTTTCTCCCATCTAATGGGGAATACAGACTATAAACAAACAGGCGGATAG  
 TTGTTATAAATAACAGCTCTGATGAGGGAAGCCCTGGGTGCTACAGAAGCACAAAGGAAGGGTTCTTAAT  
 GCAGACCTGTGATTTTGAAGAAATGTATCAGCCAAAGTAAATAAAGTCACTTGGCACTTTGCTTCTGGAG  
 AATATACATGTTTATTTAATGAATGCTTGTGGATTTTCAAAGATAAACAGGCTATTTGCACCATGTAGA  
 TACAGACTGACCTGAGGCTCCACAAGCTGAGGGAGTGGGAGCTTATTTTGTGAGAGTTCATGATGCA  
 GATATTGCCACTTATCTCCATTTTGGCCCTGGGGTGACAAGATCGAGTCTGGAACGTCATTTTCAGGGCT  
 GGATGCTGTTGCTTTTGAAGAAACAAAGGTGAAGAGAATAATCAACACTAAACATTTTGTATTAC  
 ATTCACAGTTCTATGAGCAATTTTAAAGAAACACTCTTAATCTCCAGTCATAAAACCACTGAATGA  
 CCAACTCTATTTTAAATGTTTTACCTTGCAGATGATTCTGAGTTGTATCGTTATCATGTTGGCAATAC  
 TGGGGCCACATTTCTTAGCATTAATTTCTATGAATTTGATGAAATCTTCTGTTCCATTGGTTTTAAT  
 CCAGAACCTGTAATTTGAATGAGATCAAATGGTCCAATCCATCAAGCTTTTCGATTAGTACCCACTAGTT  
 TCCTCTGCTGAGATAAATCTAATTTTGAAGCCAGTTCTTAAATCATTAAATTAATTTCTCTTCTTGCAT  
 TCCTGTTCTGTAAACTCTCACTTCCCAAACCTATTTAAATATTCACACAATAACTGTTATTTAAAC  
 CGCATACATGGAATAATCATCAAAGACATACAAACACATTTTGAAGAGCAGGCAAGCAGAGTCGCAACT  
 ACAGAAGTGTACCTGAAGACAGCTGATATAAGATGTAAGTTAATAAAGGAGCAAGTTATGGTCTCCCC  
 AGTGTAGCAGCTGAAAGCAAAGCAGATGCTATGGTAAATGCTGAAACTCTCAGAGTTTCTGCACACAC  
 ACAACACCCACATGCCACACTTTCAGAGAAATCCATATAGAAAGCTTTTTTTTGTGTTTGTGTTTTGT  
 TTTTGGAGACATGGTCTCAGCTATACCCCAAGGTTAGAGTAGAGTGGTGTGATCTTAGCTCGCTGCAAC  
 CTCTGCTTCTGGATTCAAGTGATTTCTTGTGCTCAGCCTCCTGAGTAGCTGGGATTACAGGCTTGACAC  
 ACCATGCTGGCTCATTTTTTTGTATTTTGTAGTAGCTAGGGTTTACCATGTTGTCCAGGCTGGTTTT  
 GAACCTCTGACCTCAAATGATCTGCCTGCCTCAGCCTCCCAAAGTGTGGGATTACAGGCATGAGCTACT  
 GTGCTGGCCTTTTTTTTGGTTTTTGAACAGGGTCTCGCTATGTTGCCAGGCTGGCTCGAACACCTG  
 GCCAAGGTGATCTCCCACTCAGCTCAGCTCCCAAGTAGCTAGGACTGTAGGTTTGCACCACTTGCCTGGT  
 TAAAAAGTTATATTCTAGTCCCTACAACCTGTTGGGGGCTAGAATTACCTGTTGCTGCTGGAATCTTTTT  
 GTCGTCTGAATTTGGGCTTTTCAAGTTACATGGATTCCAATTCAGAAAGGTTAACTGGTTGGAGAGCTTC  
 TTGATGCTCTGGCTCTGAGGATTTCTTTAGAATGGTAGGATGCTGCAAAACATTTTCAATGGCAGGCTA  
 TTTATGTTTAAATAAATACTCCCTTTATCTCAATTTCAATAATGGGACTACATAGAAAATTTTATCATG  
 AAATAAATGATGGTATTTTGTATTTGCTATAATTATATACTATAATTTTTTGTGTTTTTGTGTTTTGAGAT  
 GGAGTTTCCGACTTGTGCCCAGGCTGGAGTGCAAGGGCATGATCTTGCTCAGTCAACCTCCACCTCT  
 TGGGTTCAAGGGATTCTCTGCCTCAGCCCCCAAGTAGCTGTGATTGCAGTTGTGCCACCACACCCAG  
 CTATTTTTGTATTTTGTAGTGAGAGCGGGTTTCAACATGTTGGCCAGACTGGTCTCAAACCTGACCT  
 CAGGTGATCTGCCTGCCTCAGCTCCCAAAGGGCTGGGATTACAGGCGTGAGCCACCACACCCAGCCTAC  
 TATGATTTAATGTACCTATTTTCAACAACCTTCAAAAACCTACTACATTTGGTGAAGTATCATCTTACTT  
 CTTCAGCTAATTCATCCAATGAATTACTAAAAGCAAGAAATGATTGGCTTTTTTCTTAAAAACAAAT  
 ACCAAATAAAAAAGTACCAAAAAGAGAAACAGTATTATAAATTCAAATTTCCCTATGGCTAAATACAT  
 TTTTTTAAAAAGAGAGAACATATTAGGATGAAAGGGGAACCATATGGCCTATGTATCTGCAGCCAGTCT  
 TATTTCTGTGAACATAAATCTCTAAGTAGGAACCACTATAAGCACATGCAAACTTTTATAGTAAGATC  
 TACTCATAAGATGCACATTTGCATTTATAAACACAGAGTGCTTTTAAAAATCATGAGAACACTTTATATG  
 ATACTTTGATTATATATAAATFACTTGCAAATGAATAACAAAGTATCTGGAACAGGTTATGTGTTCT  
 GATGTCAAATTTTAGTCACATCTATGAAGCTTTGTTTTCCAGTCAATTAGAGTCACAAAATTCCTTTAT  
 AATACATCTTCTTTTACGAAGAAGCCTTACACTAGACCTCACTGCCAACAAGAACACTCAGCTACATTA  
 AACCAACACAAACCAACACCCGCCATACCAACAACACCTAGACAGGAAACTGCAAGTAGAATGAA  
 ATAAAAATAACAAGCCAGTGACTCATATAATGTTGTTAATGTGTGAAATCTTTTCACTTACTAGCAGTT  
 TCTCTGTAGCTGGTTCATCACTTCCAACCAGAGTTCTCTTCTGGCAGGCTGCCACATATGTGTATCAAG  
 ATGAATGCCATAGATAGTCATTTTTTACCTGATCTTCACTGTGCTTCTCTGAAGCATCATCTGGACTT  
 TTTCTAATTTGCACTTCACTGTTTTTCAAGTTTCAAGGAAAGCGCTTCAAGCTCATGTTGAGTGGCTCCATT  
 ATCTCCCAAGGCCCTGATCTTGTGAAGTCTCTAACAGAAAGGCAACCTTGTGCTCAATCTCTGTTAGCATA  
 GCCTAGGAAATAAAAGCATTTAATTATTCATAATGTTGTTCTTGAAGAAGTATGTGCTGCAAAACAGT  
 TAAGACTTACTCTTTTACTTAAGTGTATACAAGAAGTCCAGAAACACAGGATGGAAGAAACCTGGAA  
 AAACAAAACCTTCCACAGAATCTTGTACTTTTCAAGTAGGATGCAACCAACCAATCCCAATTACACAT

FIGURE 1, sheet 54 of 66

GTCACTCTGTAAAAATAATTTAAGTAAATGACTCTATAGTCGCCTTACAAAACATAGCAGAATGTATCCAG  
CAGAGGATAGTGGTTAAGAACACAGATCTTGGAACTAGACTATCTGGTTTCAGATCCCAGTCCCTACCCT  
TAGTAGATGTGTAACACAGGCACCTTACTTTAGAGGAGTGTGCCTCTAGTAGTCTGTAAAAAGAATA  
ATAACCGAATCACTCCTTAAGGTCATTATCAGGAGTGAATGAATTAATCCATGTACTTTGGCCAGTGC  
TTGATACATCTGTGCTTAAAAAGTGCAGATATTTCTATTTTCCCTTACCTTCTAATCTTTTTTTTTT  
TTTTTCTGTAGACGGAGTCTACTCTGTGCCCAGGATAGAGTGCAGTGGTGTGATCTCGGCTCACTGCA  
ACCTCCACCTCCCAGGTTCAAGTAATTCCTGCCTCAGCCTCCCGAGTAGCTGGGATTACAAGAGTGGC  
CCACCACGCCAGCTAATTTTTGTATTTTAGTAGAGATGGCGTTTCGCCATTTTGGCCAGGCTGGTCTC  
AAACTCCTGACCTCGTGATCTGCCACCCTAGGCCTCCCAAAGTGTGGGATTACAGGCATGAACCACCAT  
GCCTCGCTACCTTCTAATCTTTTATGTGCAATCCAAGTGTGGAGTAGGAATTTAAAAAAGAATTCCA  
CGTAACTGTTTGAAAAATATTTCCCTTGCTCTTTCTCTCTCTCTCAAGACAAAATAGCCTCCAACT  
CTCACAAACCCATAGAGAATAATTTGGAACCTGAAATATTTAGTTATTGATACAACCGCCCAATTCAC  
ACAAATCTAAAAATATATCAGCTGGATGAAGTAAGTTTCCAGTAAGTCTCGGTCAATTGTATTCCTGCTC  
AACAGATCAAGTTTGGCCCTCTCCTGGGGCTCAGCAGCCTGCTCGGTCAATGCCAGCTGGCTGGGCACTCAC  
GTCAGCAGCAACAGACAACTCACATTCAGCACCATGATCATTGTACTAAACTCGGTGCGTGACTAA  
GAACAAAGTTGCCATTCATTGAGCGAATTAAGGAATTAATAATTTTCTTAAGGACGAACCTATCTTAA  
AACAAAATTGCAATAATTTATCTATACTCCTTCATCCAAGCAAGCTGTAACAGGCCCTTTTATCTAT  
GCTTTTACTTTCTGTGGTTTCACTTACCTGCAGTCAATCAGGGCTCAAAAATATTAATGGAAAATTCCA  
GAAATAAATAATTCATACATTTTAAATTTTGACCCACCTGAGTAGCGTGATAAAATTGCACACCATCCTG  
CTCACACCCCGCCAGGATGTGAATCATCCCTTTGTCCAGCATATTCATCTCCAGCACTCGGCTCATAG  
TTACTTAGTAGAGGTTGAGTATACCTAATCTGAAAATCCAAAATCCAAAATGCTCCAAAACCTGAACT  
TTTTATGCACCATGCCAGAAGTGAAAATTCACACCCAACCTCATGTGATGGGTCAAGTTGAACCTCTG  
TTTCATGTATAAAATATTAAAGTTATTATATAAAATAACCTTCAGGATATGTATATGAGGTATAGATAA  
AACATAAAGTTGGGACTAGCATGTGGCTCATACCTGTAAATCCAGCACTTCGGGAGGCTGAGGCGAGG  
GCTCACTTGAGGCCAGGAGTTTGGAGCCAGCCTGGGCAACACAGTGAGACCCTGAGTCTACAAAAAATAA  
AATTAGCCAGGCATGGTGGTGTAGCCTGTAGTCCAGCTATTCCGGAGACTGGGGCAGGAGGATTGCCT  
GAGCCCGTCAGGTCAAGGCTGCAGTGAGCCATGATCATGCTACTGCCTCCAGCCTGGGTAAACAGAGCAA  
GACCAAAAGTTGGGACTACTCTACTTATGTCCTCTATAGATTCTTCTAAGTTTAAACAATATGTACCCATA  
GACTGTACAGTGGCTATAAAACAAATGTAGCATAATTTTATGCTCTGTTTTTCCCACTTAATATTACAT  
ACTTTTTCTATCTGTCTCCACACGTTTCATGATTTTCATTTTAAACAGCTACAAGTTGATATCCCATGATTC  
ACTTACCAATTTCCCTCTGTGTACCCCTTTGTTTCTAGTTCTTCACTTTTGTAAATCAATGCTTCTATAAT  
TATTTTTCTCACTTTGGGATTATTTTTCAGAAGGTAATTAATAAGTAATGTTACTGGCCGGGCACGGTGGCT  
CATGCTGTAAATCTCGGCCTTTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTGAGGAGTTCGAGATCA  
CCCTGGCCAACATGGGGAACCGTTTCTACTAAAAATACAAAATAGCCAGATGCTGTGGTGCATGCCT  
GTAATCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCACTTGAACCCAGGAGGCAGAAGTTGCAGTGTG  
CCGAGACTGTGCCACTGCCTCAGCTGAGCTGGTGAGAGCGAGACTTCACTCAAAAAAAGTAATGGTAC  
TTTTAACTCAAAGAAGATGAACAGCTTATATGTTGACAACCTGACCTCCCAAAACATTGAGCCAATTAGAT  
AGAACTACCAGACATTAGAGTATCTATTTTCCAGAATGATATTTTTTAATGTAATGTGACAGCTGTTT  
TAATTTATGTCTTTAATAATCAAAATTAACAATTTCTCAAATATTACATTACTAAGCATATCTCCCTC  
CTCCCTCCCTCCCTTCTTCTTCTTCTTCTTTTTTTTGCAGTGTCTTACTCTCTTGGCCAGGCTGG  
AATGCAGTGGTGAATCATAGCTCACTGCAGCCTTGAATTTCTGGGCTTAAGAGATATTAGTGCTCAGC  
CTCCAGGTAGCTGGGACTACAGATACACACCACCATGCCAGCTAGTTATTTTTTAATTTTTTTTTTAA  
ATTATTTGTAGAGACAAGGTGTAATATGTTGCCAGGCTGGTCTCAAACCTCTGGCCTCAAGCAATCC  
ACCGCCTTGGCCTCCCAAGTCTGGGATTACAGGCGTGAGCCACCCTCTGGTCCATAATCTTCACT  
GAAGTGTGCTCTGTCTTTGGCCATTTTCCACTGGAATTTTGTGTTTTTACAGACCCTTTAAGGT  
TTTTATATGTTTCAATAAATCACTTATTGTGTTATGTATATAAATGAGCCAAAGATGCCTTTGTATGTT  
GGCCCATGTGGTTTTTCTTCAAAGCAGGTGAGAAGCAGTAAGTTCAAAAAGTGCCAGCACCAGACTCAA  
ATTTTTACACATTTGACGGCTTTAAATGCAGCCCAAATAAGCATATTTTAATCCATTAGAGCCTGTCTG  
CTTTGCATACCCCTGAAAATGCACCCAAACATCTGCCAGCCACGGATAAGACTAACCTGGGCTATAAAA  
AAATCCCAAGCCTCTGCTGCCCTTCGGCGCTCTGTGACCCAGAGACCTCCACTGTGCTGAGACATCGCT  
AGACACATAAGTTCCCTCTCCGTTTCTCTCTCCCTGGGAGTTCCCTTGCCCTCTCTCCCTCTGGGTG  
GTGGCCTGACCCCAAGTCTATGCCTTAGCCTCTGGAAGGTCTCCTGCAGTAAGAGCTTCCCTGTCTCT  
ACGATCATAATCTTGCCAAAATGCTGCCAAAATAAGCTTGTGGGTGCAACTGCCACCTGGTAGTCATG  
TCTTTTCTTGGAGCAGCTGGAATCCTTGAACCTCACTACAAGTGGCAATGAAGATGGGATTCTGGTGAT  
AATCAACAGAGTTGGCATAGGCTTACCCAGTCAGTAGATAATCAGTTGGCAATCAATCCTGAATGGCCT  
TAAGTGGGTGGGACTCAAAATCTGAGCTGCTCAGTTGAGTTAGCATAGCATGTCTGTGCTGTATG  
ACGCTCTATGGCATTACAGGCTCCCTGGGCTCATCAGCCAGGCCAAGCGGCAGTGCCAGTATCTGAG  
TGAACCTATCCCTTTAGAACTGACTTTTGGGCTGGGCATGATAGCTCAGCCTGTAATCCAGCACTTTGG  
GAGGCTGACTTGGGTGGATCGCTTGGGCCAGGAGTTCGAGACCAGCCTGGGCAATATAGTGAGACCTCT  
CATCTGTACAAAAAATACAAAAAGTAGCCGGTGTGGTGGTGAGGCTGTAGTCCAGCACTACCCAGGA  
AGCTGAGGTGGGAGGATCACCTGAGCCCAAGTTCGAGGCTGCAATGAGCTATGATTGCTCCACTGCAC  
TCCAGCTTGGGTGACAGGCTGAGACCCGAAAAAAGAACTGACTTTTGGATCAGAGGTGCC  
GAGATGCACAGAAAAGGAGGCTGGCCTGTCTGTCTGGTTCTGGATGTTGTTAAGACTATGGGCTTACAT  
AGAAGGGGAGAGTGCACAACTGTGGATCAAGGCAAGGCTTCCCAACAACATAACAGGCTACAGCAGGA  
AACGCTCCCTGTGGCAGGCTAGTGATATGCGAACTCTGAGACAAGAGGATGTCTTCTCTGCGAGACA  
AGCCCATATGATAAAGACAAGTCTGGTCTCCTAAGTGCAGCTGGGAGAGAGGCTTTGCAAGCAGCTCGC  
GTGCCCTGCTCTTGTGCACTCGATTATGCTGTGCAATGTATCTAGCTCTCCCTGGAGGGAT

FIGURE 1, sheet 55 of 66

TAGAAACCCCAACCTTCGGGCTGAGCCGGCAAGCTTTACTCAGAGCGACTAGCGGCAAGGAAGTTTATAT  
CCCTGCCCTCCCAAGCAAAACCCAGGGCATTCCCTAGTAAAATGGTTGCAAAGCCCTTTATGCTGTATC  
TTCAATTTTGCAAATTAATACTTTTGGTTTCATTATGATGAATGAATATTCTAATTACTTACTAAAAAT  
GAATAAAATAATAGCATTACTGAGCACTTGTATATATACTTTATATACCTATTAACTCCTGACAAAAATC  
CTATGAGATAACTTTATATCCTATGACACTGCTTTAAATACCTTATTTAAATCCTGCGACACTACTTTAA  
ATACCTTATTTAATCCTGACAAAAATCCTATAAGATAACCTACTATATAAGGAAAATGAGGCTGAGAAGT  
TCACTTCCCGAAGTTTACAGCTAATGTGACAGAGCTGGATTAGACTCCTAGATTCTGAACACTACTGTC  
CCCTCAAATAAGATAGTTCCATAAAGCATTTCAAAGAATTACCCTGAGAAGCTAAAAGCTGAGGCCAAGAT  
AAATGTAAGGGTCAGAGTAACAGAAAGAAAAACAGTGTGCTTTAAGAGAAATTCACCAATCTTGGCAG  
ATGATTGGTGGAGAGGCAACCATGAACCTCTGACTTCTCAGTCTTACCTGGCACCCCTACCAGCTGCTGTT  
CCAGCACCTGCTGCATGCTGCGTTTAAATGTTTCCGGCTCAACTGCCACGTTGGCTTGTGACGCCACAG  
CTCCAGCTCGGCCACCTGGGTCTTGCAGGCATGCAGGACTTCTGTGGGCTCCGGCCTAGTTTTCTCCACC  
CTGGGCTCCAAACCTCCTTGCAGCTCAGAAGAGTCCAGAGTGTGAGCCTCAATAGGAGGTGTGGTGCCT  
AAGAGAAATCCAAAGATAGCCAGGGAGTCCAAAGTTTTAGACTTGGGCTGCAAAGACCTGGGAACCT  
GCAACATTTCCCGATTAAAAGAAACAAAATCAGGACAGAAAGGAAGAAAAGAAAAGAGAAATGCACCT  
CCACATTAAGCAACAATCAGTGAACCTGGTGCCACAGGTTTCCAAGCAGCCGATCTGCGAGTAAGCAG  
GTACAGTATTCCCGGCCACAGAGGACGCAAAACAGGCTCAGAGTTCACCTACCCGGTGAGCCCAGGAGACA  
GGTGAGAAATGTGAGTGACAGGGTGTGTGTGTGTGCGAAACATTTAAGGGAATTGGCCAGTGTGTAGCGTT  
ACGTGACACATGATTAAGCAATGCTTACATTGCTGCACACTCTATTCCAACAGAAAAACAAAACAAAACA  
GAACACCTCTTTTACCTCCGACAGGGATCAATAAAATATACCACATAATTTAACTTGACATCTTCTC  
AAATAGTTAGATTATAAAAAATTTAGCTTTTAAAAACATACATGGTATTACTTATCTAAATTTTCCCT  
AATAAAACAGCTTGAGTCAAGTAATGAACCTCAGTGGGGTAACCTGGAAACTTTTTCTTATCTCTCAG  
AAGGAATCCCTAAAATACCTTCCCTTCCCTTCTGCATCTCGAATATGATTGAGTTAAGGACTAGATGCT  
CAGCATATAAGAAAGTGTGGTGTGCTTTTACATTGAAATAACTGGGTTGTTTATCAACTGATTGGGA  
AAATTTTCTCCAGATACCAATGAAAGTATTCCAGTAATTATATATTAGATATGTTCAACCTGGAGGCA  
AAAGATAATTGGATAGAGAGATGATTTTACCTCCACTGTATTATCTATCCTTCTCAGAATATGGAAAA  
AGTAGTATCGATACTTCTAGAGAAATTCCTTTAGGAATAAGGATTTGTGTTTTGCTGTATAAACCTTTTG  
CTCTCAAAAAATATTTTATTGATTATGATAAAATACAATGTTTCTATAAGAGTTTGTAACTGTTAGC  
ATCTAATAATAAAATGTAATTCAGCCAAGTGACAAACTTTGAATGGGAATCGATTGCAAAATATATACCC  
TAACTCAAATGCACATTCTCAATGTTTACGGAATTTTGTGTTAGACATAGAATTTTCACTGTAAAGAGC  
GAACAAAATTTGGTAGGTGGTAACAAACAGTGTGAGGATGAGAATGCTGTTTCACTTTCATGCACACTGA  
TGAGTATTATGAAGAGTGTGCTGGCACAAAGTGTCTGGGTTGTACTTTTACCTTTTACCATTATTTAT  
TTCACATACATGTGCTGTTTTCTGCCAAATGCCATTTCTTCCCTGCCTTCAATTAATCTATTATTATAAT  
TTTCTTCAAGAATCTTGAACCTTCTCAAGGAACTTTTCTTGTGTGTGCTTTTTCTGAACCTCATA  
TATAGTCAAGTCTATGCTTGGATTCAACTGTTTTAATTTCTTTTTTAACTCTGACCTTTTTTTTTCTTC  
TTGGGAAGAGTTTCCCTCTGTCACCCAGGCTGGAGTACAGTGGCATGATCTCGGCTCACTGCAACCTCG  
CCTCCAGGTTCAAGTATTCTCTGCTGTGCTGCCCTCCCAAGGAAGTGGGATTACAAGCACACACACCAT  
ACCTGGCTAATTTGTATTTTGTAGAGGCAAGGTTTTGTGATGTTGGCCAGGCTGGTCTTGAACCTCT  
GGCTCAAGTGATCCACCCGCTTACACTCCCAAGTGTGGGATTACAGGCATAAGCCACAGCGCCTGG  
CCCTGATTTTTTTTTAAAAAAGCAACAGTGTGTGATTTTGCTTCCAGACTTCCAGATATCAATTTCTA  
GTCATCTGATTTAATTTCTTCTGATTTTTCAGATATTGCTATATCTAGTTTTCAGATATTGCTACAGACA  
AGATTTTGAATTTCCCTTCTCTTTTTTGGCACTTGAGAGACAATCTATTAATATTAATTAATCTAAGA  
CAATCTATTAATATTAATCTGTAATCACAGATTACCACCTGCCTTCAATATTATTCAAAAAATTTATT  
TGAGCACTGTTATATGCCACGCACATTTTTTTTTTGTAGATGGGCTTGGCATGTTGCCAAGTGG  
GTCTCAACTTCTGGGCTCAGGTGATCTCCTGCCCTCCCAAGTGTGGGATTACAGGCATGAG  
CCACCACACCCAGCCCTCCACACACTTTTTTAAAGACAGTATTGAGTTTCTGCTTCTCATGAACCTC  
ACCAAAATTAATGAGGAATAAGCAAGCTGCATGACTAATCTGGGTTTTTTTTGCTAGTTATTTGAACCTG  
AAAAGAAATCCAAAGGGGAAGAGAAGACAAAAAGAAATTTCCAACCATACAGCTTCAAGAGCTGAGGGTG  
GGCTGAGGAACCCATAGAGATCAGTTCAACCCACTCTTTTTAAAGTCTAAGAAATCCAAGTGACAGAA  
TGTTCAATCAGCCACATGCCTCCCTTTTTTACCATTGTTGCTTCTGAGAAGCACCAAGTTACTAACC  
GGTCACACAGCTCTGTGATCTTTAATTCAGAGTTCCCTTGTTTTTTACACAGTAGCATCCCTGTAATAAT  
ACCTTCTCTATATGATAGCCCCAAATTTCAAAGCAAACTTATTTAAATGGATGTTTTATAATTTGTACA  
CTTTGGCGGGGGGGGGGGTGTAAAAAGTATTACTATAAGTATTTCTTATTAATAAATATGCTTCTC  
TAAAGCATAACTGTAAATTAATAATAGCTAGCCTTTATTGGGCTCTTACCATTGAGCAGGCACTGTATGGT  
CACACAACCTAGTAAACAGAATCAAAGCAATTCCTGCTTCACTACACTTTGGAATCTACAAGTCCACAT  
TCTTGATATAATTTACCAACCTTTTAGTATCCAAGTTAACTTTTCACTGGTGAATCACATTGCTTCCAC  
TTCTGCATCAACAACAACCTGATCTAAGTAATCAGTGAAGTAATCAGTAATCAGTAAAAAACTGCAGT  
TAAATGCAAGTTGATTTTCTGGCTATTGCTACATTTTCAATGCCAAATAGCAACCTTTACATTTTCTCC  
TTAATATTTTCACTCAATTTTACAAATACCTGCATATCTCCCCACTGCTTATACCTGCATATCTCCCCA  
CTGCTTATGAAATGTAAACTGCATACCTAAAGTACAGTACCTAAGTGCATGAATAAATGAAAGCAT  
GCCCTAGAACTAGTGGTGGTGGTGTACTCTGAGGTGATGCTGAGTGGATTTCACATTTTTCACATTTT  
TCCATACTAAATATTTATCCTTGGTGTGTAATACGGGTCAAGAAAGTACTCAGAAATTTTACTAAAAATATG  
CAATTATCTATTTGGTCAATACCTTAACTCTGAAACAAAAGGTTTGTGAGGCTGATAGAAGGCTGATG  
ACATTGGCTGCTTGGTTTCTGCAAGTCCCACTTCTCTTCTCATTAGTGATGTGCTGTGCCAATGAGAC  
AGAAATCAATAAAGGCAGGAAGACAGTCAACCAAGAGGTATGGAACCTGGAGCCAGTAAAGGTGTCCCTG  
AATAATCAGAAGTGACAAATTTCTCCTGTAGTAAAGGGTAACATCTATTTTCTGCTCCAAGAAATCC  
TCCCCAGCAAAAGTTCTGAGTTAAGAAGAAAATACAAATACACATACATAAATAGTTCAAAAGAGAG  
TCACTGGAGCCTAATAGTTCAAAGCTCAGGTTTAAACTCAGAGTCAGAAAGATCTGGGTTTGAATCCTA  
GCTTTGCCACTTACTAGTAAATGACCTTGGGATCTTACTTCTGAGCCTCAGTTTCTCCATCTGTAA  
AGTGGGGTAACAGTAATATTTATCTCATAGAGCTGTTGTTAATGATTAAAGAGATAGTATATGTAATAAT  
CCAGTACCTGGCCCATATTAATGTTAGTAAGTATTTGTTATCCTCCTTTTCTTCTCCTCTCTCTT

FIGURE 1, sheet 56 of 66

TATTGTCATCATTATCTAGTATCCACATGGCCAGGGAAAAGACCCTAGAGGTTATCCACACCAGCAGAAAA  
CAATATTAAGCAGAATGGCTACTGTAGCTAAAACACCATTGAAGCTACATCTGATTTTAAATTAGATGTC  
AAAAATAACATTACGGTGGGCAGATGGTTTGAGACCAGGAGTTTCAGAGCCAGCCTGGGCAACATGGCAGA  
ACTGTGTGTTCTGAAAAAATACAAAAATAGCCAGGCGTGATGGTGTGTCCTGTGGTCTAGCCATCCGG  
GAGGCTAAGGTGGGAGGATCACCTGAGCCCAGGAGGTTGAGGCTCCAGTGAGCCATGATTGTGGCCACTG  
CACTCCAGCCTGGGTGAAGAGTGAGACCATGTCCCAGAACAAAACCCAGATTAATTCTGAACAGCAAAA  
AAACATACTGACTAGGTGAGCAACTTCCTTAGACCTAAGCATTGCCACTGGGTGTAACCTCTGACATTT  
GTCCACCTTCCCTAGACATATATTGTTAAGAGAGACAGAGAATGAAAGGGAGGGGAAAGAAAGAGAAAG  
GAGTAACAATTTGAGAACTAAGAGATATTTTTGTAAGACTAGACAAAAGATTGGGAGAAAAAACAATAAA  
TAGAACTCAGTATAAAAGAAAGAAAGAGATGCAATAATTAACAATAAAACAGCAAAAACATGCCAATA  
TCTTTTATAGGAGCTATTTGATGAGACCCTTGGAGCTTATAGTCCAGCTAAACACCAAAATTAACCTGGG  
AAATAGTACCCATCCCCCACACCCTGCTGTAAAGCCTTATTGAGAACAACAGGTACAAGATTCCAAT  
TAGGAAGCCAGATTAGAATATTTCTGGGTTTGATTCTTATTCCTCCATTACAAGCCATATATATATATA  
TACATTTTAAAAAGACAGAGTCTTGTCTCAATCGCCAGGCAGGCTGGAGTGAGTGCGCAATCTTGG  
CTCACTGAAATCTCTCTCCAGGTTCAAGCGATTCTCTGTCTCAGCCTCTTGAGTAGTTGGGATTAC  
AGGCATCTTCAAGCAGCCCGGCTAATTTTGTATTTTGTAGTAGAGAGGGGTTTACCAGCCTGTGGT  
CAGGCTGGTCTCAAACCTCTGACATCAGGTGATCCACCTGCATTGGCCTCCCAAAGTGTGTATTATAG  
GCTTGAGCCACCATGCCTGGCCCACTAATATATTTTACTCCTGAATTTTGATTTCTTAATTTGTA  
CATATGGTAGGTATGAACCTACCTTATACAGTCTGAGGGTTAAACAGATAAATATAATGCCTTTTATGT  
AACAGCTTCAATTAATTAACCTTCTCTACTTTCTTGGCCCCATAAGTTCTATCTACAGATTAA  
GAAGTAGTCATCAACAGAAAGACTATTTTCATGATGACAAATGGTAAATGAGTGAAAAGCGTCTAATTCCTC  
TATGCCATGCCTATTTTCTTTGTAATATCTGATGACAGTCTTCCAGTTCTACAGCTTGACAGCACATA  
TCTTCATATGTTAAAGTTTCAAGGAACACTTAGCTTGACGTACAAGGTATTGCAGGACACAGAACACTG  
GTCATCTATGAGTGTAGTCCAGCTATCTGAGCAGTTTACTTATTAACAACCAGGACTTACCTCTCTGT  
TTGGTTGGGCTTAGGGAACATTCTGGGCTTGTCTCAGTGTTTAGTGAGTCTGGTGTGAGGATTTGTGCC  
ATGGAATTTATCAGAGGTGCTTATTTTCCCATATGCTTCTGTAAAGAAAAGAAATCAGAGCTCCAGAAAGG  
GTCCTGCGCTGGTGCCACATGAATCTTCTTCTGCGCATGCTCATTTTACAAACTACCTGCTTGCAAAA  
AAGTCAGATATGGAGAAGTCAGATACGATTAGAAAAAAGTTTGTTCATTAGGGAAAAAATCAGCTTCCCC  
AAGACTGTCTTTATTTGAAAGACTTGCATTCTCCACACTTCTCTTAAATGAGCACATAAAACAATCTAG  
AGAATTACGTACTTAAGTAAATCTTCCAGAAGTATGCTTGTCTTGTGAAGTATTCTTTAAAGTATG  
TCCTTATGAAAATTTAAATTACATGGCCAGGTGTGATGTCTCACACCTATAATCCCAGCACTTTGGAAGA  
CCAAGGCAGAAAGTATGCTTGTGCTCAGGAGTTTGAGACCAGCCTGAGCAACATGGTAAGACCTGTCTC  
TATCAAAATAATTAATCAATTAATATATGATAAAGGCCACATTTCAAAGAGTGGGAAAAGGTGAATTT  
ATTCCATTTAGGAACAACCTACCAGGCATTTTATGAAAATATAAGTAGAATCTTGTATTACTCCTAAC  
AATAAATTTAGTTATGAAAAATATACTAGAAATCCTTGTATCACCCCTAACAAATAAATCTCATTTGTAT  
TCTCAAAGTTATGCCATAAAATTTCTAGGTGTGGGAAGCATGACAAGAAAGGAAAAATAATATTAGTATT  
GACTACATAAAAAAATAAATAATATGACCACAAAAAGATACCATAATCTAAGTTAAAGAGAAATGACAG  
ACTGGGATAACTATTACACATAGTGTTAATATTTTTTTTGGAGACGGAGTCTCGCTCTGTCGCCAGGCT  
GGAGGGCAGTGGCAGATCTCGGCTCACCAAGCTCCGCTCCTGGGTTACAGCCCTTCTCTCTGCCTCA  
GCCTCCGAGTAGCTGGGACTCAGGCCACCCGACCCAGCTAATTTTTTGTATTTTATAGAG  
ATGGGGTTTACCGTTTTAGCCAGGATGATCTTGATCTCCTGACCTCGTGATCCACTCGCCTCGGCCTCC  
CAAAGTGTGGGATTACAGGCGTGAGCCACCATGCCCGCCAATATTTTAATATATTAATTACTCTATA  
AATAAATAGGAAAAACATCAACCCCTACATAGAAAAACAGTCAATGGTAGGAACAAGCAAGTCGCAAAAG  
AAGAGTTACAAAGCCAAATAGGACTTAAAGAGATATTCAACATTTCTAGAACAATAAATTAATTTAAACC  
ACTGGCTAAGTTTGGCTAAGACTGACAAATATCAAAAAATCAGCTTGTGTGTTGGTTGGGGGGGGGGTCTG  
GAAATGCAATTCATGTATACCTAGGAGAAATATTGTTGGTATAGCCTTCTTTTCTTTCTTTCTTTT  
TTTTTTTTTGGAGACAGGCGCTCACTCTGTACAGGCTGTGGTGAGTGGTGAATCTTAGCTTCACTG  
AACCTTCATCTCCAGGCTCAAGTGATCTCCACCTCAATCTCTGGACTATAGGCATGCACCAACG  
ACCGGCTAATTTGTATTTTACAGAGACAGGTTTCACTATGTTGCCAGGCTGGTCTTGAACCTCTG  
AGCTCAAGCTGTCCGCCACCTCAGCCTCCCAAAGTGCTAGGATTACAGGCATGAGACAACCTGCACCTAG  
CCTGGTATAACCTTTCTAGAAGGCAGTTTGAATGTGTGCATTTTAAATGGATATATACCTTTGATT  
CAGCAATCCTTCTTTAAGATTAAACCAAGTTAAGCAATGGGAAAATGACATGTACACAAGAATTAACA  
CAACGTGACAGAAAGCATGTGGATATTATAATCAACCAACCTTGATTGCTCTACTTGCAAGTTGTATGAT  
CTTGGACAAATTAACCTGAACCTCTGAAACCTCAGTTACTTCACTTTAAATGGGAATAAACCTATC  
TTACCTATGCTTGCAATTAAGTGACATATATAAGGCATTTAGCATTTCTAACAAAATGTTAGTGCTTT  
TCAGCTTCTACTGAAAACAGTGACTGTTATCAGAAAGGTATAAACCAAGAATTAAGGTAGAGATTAGAT  
AAAATTAGAAAGGTAGGCGGGACCAAGGAAATCTGGAATGTCAGCTAAGTTTGCAATTTTCTTCAGTAG  
ATAATCAAACCTCCATGAAGAATTTAGGCTGAGGTTTCGCATGATTGGTTTATAGGAAAAGTCATCAGTAT  
TTTATAAGATGTATTAGAAAAACAATTTGGAGACTGTAACCAATTAGAGGGCTACTCCAAAAGTCCAGG  
GAAGTAATAAGAAATGCTTGAATAAGACGATGGCAAAAAATATGGGAGGAGAGGCTGTACACAGTGAAT  
GGACATTTGGCCACTGACAGGATGTGACAGGTGAGAGAAATGAGGCACCTAGTAGAACTCCAAGTTT  
ATCTCTGAGAAAAATAGTGGCACCAACAGCAGACACTGAGAAATTAGTAAGAGGAGCAAGCTTTGAAGGAA  
AGGTGGTAAAAATAGGTTTGAAGTTGGAGAACTCCATCCAAAAAAGTCTATCAGGAGGATAGAAATGTGG  
AATAGATTTATAGATTAAAGAGAAAAGCCAAGACTAGAGATTTAGTTTGGTAATCACTGGCATAGAGGTG  
ACCACAAGCTCTCAGAGGAAATAAAAATGGCCCTGAAAGAAAAACAGAGAGGCGCGGCGCAGTGGCTCACAC  
CTGTAATCCAGCACTTTGGGAGGCCAAGGCAGGTGGATCATCTGAGGTCAGGAGTTCAAGACTAGCCTG  
GCCAACATGGCAAACTCTGTCTTACTAAAAACAAAAAATGAGCCAGGCATGGTGGCGGGCACCTGT  
AATCCCAGCTGCTCGGAGGCTGAAGCAGGAGAATCGCTTGAACCCAGGAGGAGGAGGTTGCAGTGAGCT  
GAGATCGCACCTCTCAGCTCAGCCTGGGCGACAGATCGAGACTCTGTCTCAAAAAAAGAAAAAAGAAAA  
AAGAGAAAAACAGGAGAGGAAGGAGGACAGAACATTGGGGGAATGCCTACCATCACAGACGAAAGAGAAA  
GAGGGGCAAGAAAGGAGATGGAGGAGGAGTGAAGGTAGAAGGACAGGGAAGAACAGAAATTAAGAAAG

FIGURE 1, sheet 57 of 66

TTAAAGGAACACCGCAGTTAAAGAAGGAAGAGGTGGTCACTCCAGAGAGGTCAATAAGGATTAGGACTA  
ATAAAAGGGTATTGAATTTGTACTCCAGAAGTCAATGGCAGTTTAAAGCATAGCCAGAGGCTGAAACAAGA  
TTACAAAAGGGGCCAGGGAGTGAACACCAAGGAAAGACCTTCAGTAGCAAAATGAAAGACGAAGTGTAG  
TAATTTGACATGGGAAGCAGGATCCAGAAATTCAGTTTCATTAAGTACCATACTGAGCTGAGTATAGGATA  
TAAACGATAAGCTTCTTTCCACTCATGAAATCGTATCAGGTGTATTCAAAAAATGTGCTAAGTCATAAT  
TGAGGTTTCAGAAATCCTATTGGAACACAGGGAAGAGACAGCAATTTCCCTTTGCAGGATGTCCAGAGGTTT  
CTTGGAGCAGGGGAAGTTGAGATGGGCTTTTGTGGATGGGAAGGAAGTCTACAGAGAGGCATGGAGAAAG  
GGCATCCCAGGGACCAAGCCCTTCTGTGGAGCTACTGAAGATGCAGGCTGGTTCTGGAACATATCTCTCTG  
TTTGAAGTAGTGGGGCCACAAGGAAGAGAACATGTTAGGGAGGGGAAGCCTGAGTACTGAGGTAGAGAAG  
GAAGGAACCTAGCCAGAGGCAGAGACTGACAAGGCAGGTATAGGCAGAGAATGGCGCCAATGATTAAGGA  
AAGAGTTGGCCTGAGAGCAGGGGGAGGGGTGAGCCCTGGACAGGAGGCAGGAGTGAAGGTTTATGGATC  
ACGAGGATGCAGAGACTTCCGGGAGCAAGGAAGCACGTAGTTTTCATAGCCCTTACAATGATTTTCT  
AAAGTGAGACCATTGAGAGACTGGAAAAATATTAGAATGTCATAAGGAGTAAAAAGACTTAGCGCATCT  
AATTTATCTTACATACTACTTTGTTCCACAAAAAAGATTATGGAGAGACCCCTCCACCCAA  
AACTCCCAAAAGAGTGGCATGTTAATTTACATGCTTTGGTAAACAGTGCAGTGAAGCTTTTAGCTGCTC  
CTTTGAGGTATCTGTTTGGTCAAGTTTGGATTTTACATATATGGAGTTTCTCAAAAAAAGTACTCTCC  
TGTTATTAGTACACAATAGAAATAGAACCAAGCAGGTGCTCATTAAAGGCTGTCTTTGCATTTGTGCAAA  
GGTAATGTGAGAAAGCTTCAAGAGATTACGGTAGCCAAAGATAGAGAAGCAACCGAAGTGTCCATCAACTG  
ATGAATGGAGAAAGAACATGTGGCATATATACACAACAGAGTACTAGCCAGCCTTCAAAAAGAGGAGGT  
TCTGTCTATTGTGAGCAATATGGATGAACCGAAGACATATGTTAAATGAAATAGCCAGGCACAGAAATG  
ATAAATACTGTATGATCTCATTACATGTGTAATCTAAAAATATGGACTGCATAGAAGCAGAGAATAGG  
ATGGTGGTTACAGGGCTGTTGGGGCTGAGAGAGGGCTGGGGAGATGTTGGTCAAAAGGACACAAAATT  
TCAGTTGAACAGCAGGAATAAGTTCAGAGAAATCTATGTATAACATGGCAATTATAGTTAATAATAATGT  
ATTGTATTACTTAAAGTTGCTAAGCGACTAGATTTTAGGTGTTCTAATTAAGTGAAGAGTGAACAATATG  
TGAGGTAATGCATATGTTAATTAGCTTGATACAGCCATTCCAACTGATACACATTTCAAAACATGTTGT  
ATACCATAAATATATACAATGTTGTGAGCTAAAAAAGAGTAAAAAAGTAAAAAAGTAAAAAAGTAAAAA  
GGTTCCTTCCCTAAGCATTCTTTAAACAAAATAGTTCTTTACTATCCTTATTTTATTTCTGTCTGAGC  
TCAAAATGGGCATTTTTAAAGTTTAGGCAAGTCTTGTGTAACCAACCAAGGAAGAGGGAAGAGG  
AAGCAAGCTAACATAGAAAGTCAGGCAACATGGCGAAACCCGCTCTCTACTACAAATACAAAATTAGC  
TGGGCGTGGTGACGTGTGCTGTAATCCAGCTACTTGGGAGGCTGAAGCAGGAGAAATGCTTGAACCTA  
AGAGCGGAGGTTGAGTGAGCTGAGATCATACGACTGCACTCCAGTCTGGGCGACAGAGCGAGTCCGTC  
TCAGGGGTGTAGGGAAGAAAGTCTGTCGCAAGAGAGATCCCTGCTCCCTCCCTGGGCCCTCGTAACCCCTA  
AGCGTGGCTGATACGCCAGCATTACCTGAACAATTGTTCCAGAGGATGAGGAAGCTCTGTCTTCTTCCA  
TGTCCTTGTCTGCTTCCAAAGTGAAGACCAAGACTGAGGCGATGGCTCTGCCTTCTCATCTCCATTCTA  
TCACAGTAAACGATTGGTTAGCAAAGGAAGAGCTTCCCTTACTGTCTATAACCGGTGCCCTACTCACTCA  
CGCTCTTTTATACAGACTCAACTTATCAGGAGTGTGAACCAAGCCCTTATTGCACTGCTCCCTCCCTAT  
TTTTATCTGTATTTTTTTTACTAATATATCATGTTTACAAATGTGGCTGCTCTTCTTAAAGCCTAGAAA  
ATACTTTTAAAGTAGGGGCTCGGCTCACGTACACACAGGAAATCTTAAATAGGTGCTTTTAGGAATT  
TAATCTGCTTTGGTAAATGAACCTTAAATGGTATCTTTGAGGCCAGGCACTGTGACTCACACCCATAAA  
CCCAGCCCTTTGGGAGGCTGAAGTGGGAGGATCACTTGAAGCCAGGAGTTGGAGGTTGCAAGTGAAGGA  
CTGCACTCTAGCCTAGGCAACAGAGTGAATCCCATCTCTAAATAAATATTTAAAAATACGTAAAGTTA  
GAAAAATTAATATGCTATCTTTAAATTAACAGCCAGGATATAAGAAAAAATGTTCAACCTCACTAATCA  
CCAGGGAATGCAAAATTAACCAACAGTGAGATACTACTTTACACCTGTTAGAAATGGCTTATATAAAAA  
GATAAAATGACAAAGTGTGAGGATGTGGAGACACAAACCAAGCTGAATACTGTGCGTGGGAATGTA  
AATTGGTACAGTATCAAGTTCTTCAAAAAATAAAAATAGAACCAAGCAATCCCACTACTGAGTACATAT  
CCAAAGGAAAAAATCACTGATGTCAAAGAGATGTCTGCACTCCCATGTTCAATGCAGCACTGTTCACAA  
AACCAAGATACGGAATTAACTTAACTGTCACCAACAAATGAATGGATAAAGAAAAATGTGGTTATATACA  
CATACTGAATACTATCTGGCCTTAAAAAATAGGAAATCTGTCTATTGCAACAACATGGGTAATTAG  
AGGATCTTCTGTTAAGTGAATAATCCAGGCACAGAAGGACACATACCACATCATCTCCCTTTAATGTGG  
AATGTAAAAAAGAACTCATAGAAGCAGAAAAATAAACCAATGGTTACCAGCGACCGGATTACAAAA  
ATGCTGTCAAAGGACATTAAAAAAGGGCACAGGAGGAATAAGTTCAAGGGATCTTTTGTATATCATGG  
TGACTATAGTTAATATATGTTTGAATAATCATGAAGAGAGTAGATTTTAAAGTTTCTCATTAACAAAAA  
ATGGTATGTGAGGTAACATGTATGTTAATTAGCTCAATTTAGCCATTCCACAATGCATATATACATGTAC  
TGTATCAAAACATCATACATGTCATAAAT  
TTTTTTTTTTTTTGTAGACAGTTTGTCTTGTCAACCGAGCTGGAGTGCAACAGCGTGATCTCGGCTCA  
CTGCAACCTCTGCCTCTGGGTTCAAGCAATTCTCTGCCTCAGCCTCCCAAGTAGCTGGGACTACAGGA  
ACCTGCCACCACCTGGCAAAATTTTTGAATGCATACAATTTTACTTGTCAATTTTTTAAAAAATC  
ACAGCTTGATGTTCCTTTCATGTGTCCATGTGTTCTCATTTGTTCAATTTCCACCTATGAGTGAGAAAT  
GCGGTGTTTGGTTTTTGTCTTTCGATAGTTTACTGAGAATGATGATTTTCAATTTTCATCCATGTCCCT  
ACAAAGGACATGAACATCATCTTTTTTATGGCTGCATAGTATCCATGGTGATATGTGCCACATTTTCT  
TAATCCAGTCTATCATTTGTGGACATTTGGGTGGTTCCAAGTCTTTGCTATTGTGAATAATGCCGAGT  
AAACATATGTGTGCATGTGCTTTATAGCAGCATGATTATAGTCTTTGGGTATATACCCAGTAATGGG  
ATGGCTGGGTCAAATGGTATTTCTAGTTCTAGATCATCACACTCTGGGGAGTGTGTGGGTTAGGGGAG  
GGGGCAGGCTAGCATTTGGGAGATATACCTAATGCTAGATGACGAGTTAGTGGGTACGGTGCACCGAT  
GGCAGATGTATGCATATGTAACCTGCACATTTGTGCACATGTACCTTAAACCTTAAAGTATAATAAT  
AATTAAGAAAAAGAAAAAATCACAGCTTGATGAACATGTACTTTTTTGTGCTGTCAAAGACAAACA  
ACACTATAAATCAGCTCAGAGGAATACATGTCTCAAATTAACATCGTACTGAAGTCACTCTTTTGTG  
GCCCCGTGCTCCCTCATTTTTCGTAGTTCTCTCTGCCATGAAGGGGTATAATCAGATTGCAAGTTGT  
TTGATGGTCACAGAGCACACAGTAAAGTTGTACTCTTCTTGTGCACAGTTCACCATGTCCAGCGACAC  
ACTCTAGGACAAGAGGTCTGCTGTGTGAGAGTGGAGCTATTAAACCATCTATAAATGAGCCAAAAA  
GTGCTGGTGGTTACATGTAAGTCACAAAAATGTAAGTTGCTTCAATTTTCTTCTTTTGTCTTAAGAC

CCATTGCAACTTATTTTTTCAAGTATGAAATGGAACCTGACGTGAGAAAAGACAACCTGAAAAATGTCTCAT  
TCAACCACTGTTAATCAAGTAGTACAAATCTTAGTATTACTTGCTAACACAACCTCTTCATGTCATTGGA  
AATACTGTTTTAGAGCAAAAGAGTAATTGAAATGCGGAAAAATACAGTTCTAAAAATGAGACCAGGAGTG  
CCAAACACAGATGCTCTCAAACTTCAGAGAAAGTCTCAGAAATCAGGATACTACAGAGAACCTCTTCAC  
CTTCTCCCGTATGCCAACAGAGTGTCTGAATTACATTCATCTCACTCTTACACAGTGAAGTAGGTTTTCC  
ATACACTTAAACATTAATAACATAAGAGAACCTTCAATCATACTTTTAAAAATATCAACATTAATTTTA  
AAAAATCTTAGGTTTCCATTCACTTTAAGATCTTTTCACTGACTTCTTTAGAGATCTGGTTCTAACAAA  
CTTTAAACAAGAAAATCTTTCCCTTACATCGCTCTTACGGAACCTTTCTCCACCTCTTCCCTGACTGCT  
GCCAGGTAAGACATGGAGCCTCTTCTGTTCAACTGAAAGGCACAGCACAGAATACTGCAGTCTGCTTG  
CCAGTCAACATCACCAGATCCAGTCCAGTGCATTTTATGTAGCTAATTTTTTACTTACTTTATCCA  
AGATGCCACCCCCACAAGAAGCCTGTCTCCTGGTCCGTTCACTCTCCAGCCAGATATCCGGAGTCAG  
TCAAACCTTAGTCTTGTATTCTTCACTGGCCCCCTGTGCCCTTCATAAACGATTAAAGAATGTGATTCA  
TTGATGTGAATGCAGAGAAGACTTAGGCACTGGGCCCTTCTTGAGTCTGCAAAGGGCTGACTTTTCTGTA  
CGAAGTACTTCAAAGGGAGGCTTGATCCACCTGCCTGTGAAATTTTATAAGCATGTCTAAAGTAATTC  
AGGTGTTAAGAATCTGGGTGGAGTCCAGAACAGGCACACCTGAGGATTTATATTCACTAGTAAACAAC  
CTCAGGTTGAGTAAATTCACCTTTAAAAAATCTTTTACTACAGGCCATAGACATAGATGCCACAGGTCT  
TCAGGTGGAACACTACCCATTAATGCTCTTGTGGAGTGTGGGGCCAGCATTAACCTAAAGTCATACCCC  
ACCTTCCGCTCAGAAGCATCCCTCTCTGCCACTCCACCTTCCCTGTATGTTACAGCTGGCAGCTTATCTC  
TTTCTACTCCTTCTTGTCTTGTCTTCAATGCTGGTGAAGTTTAGTACGGTGGCCTTCAAGTCCACCAA  
CAGGCTCTTCTTCTTGGTTCAAACTCAGAATCTGTTTCTCCATACGTTTCGATTTCTCCCTGTGTAGAA  
AGAGTGTTCATAGGTTTGAGAAGTCTGAGGCCCTCTGCAGGCCAGAGCAGCTGCTTCTTTGGTACA  
AGGGCTGAAGATTTTCTTGTGATTTGGTTTACAAAGCCAGAGCTAGTCTCTGGTACGGTATAGCTCC  
TTTCCATCTCGGATACAATCCAAAGTCTGTGTAGGTTTATAAGCTATAGGATGCCCTCAGCCTTACC  
AGAGCATTAATCTGAATCAGAATCTCTGCGGTTGAGCCAAAGCATGGAACCTTGAACATGCTCCACAGT  
GACTGTGGTGTGCGGCCAGGTTGGGAGCTACCGCTCTAGTGGCCAGCTACAGGACTGAGAGAACCAGGA  
TCCACGGGGCAGGGCCCCGGAGTCTGCACACTAACCAACACTGCATAAGTGCCTTATGCAGACTTTCCAT  
TGTGTCCCAAAGCATATTAATAATGATGTCCCCAGGAGACATGTTCCCATGTCTCTCCAGGAAATCTT  
AAGCAGCTAAGTAAATTTGGGAACCACTGAGAGAAAATGAAGACAGAAATCTCATCTTTTATTATCATCT  
TGAAGGCTCTTGTGGTATTACTAAATTCATTTACTTTTTTTTTAAGCAGAGTCTATCCTGCTCAATCATT  
TACTTTTTCTACAGTAAATCTTCTACTAAATAGGAATAGGTAAACAAATAAAGGTACCATGTAGTATA  
TCTTATTATGGGAATGATGGACAGATGATCTCAAGCTTCGTGATGTTACTTTTTAACATTTATATTATGA  
GATTATAGATTCTTAGCTTTGGAAGAAACAGCAGGTGACAAATACACTAACATCCTCCTCTCTAGCACCT  
CTGAGAGATGTCACTTACCTTGCCTGAGCTCTGAAAGTGAAGTACTGCATCAGAGCAGCCTGCTCCTTTT  
TAGAAAACCTTTCATGTGTTTGAATTTGTTCCTAATATATTCCTTAGACCCCTATTCTTTCTTGTATG  
TCTTCTTTTGTCTGTGAGTTCATCTTCCACCCATCCTACAGATAGTCATAGAAGCAATAATTTCTT  
ACAAAACAGAGAAACGTAATCTGTCTCCACCTGCAAGAGAGAGTTCTAAAGGCCAGAGAAAGAGGTGAT  
TTGTCCAAAGCTGCAACTAGCACACAGCAGAGCACAGGCTGGGCTTCTCCTGGCTGTACTGCACACAT  
TTCTATGCCAATACCCCTATTCTGTCTGAAGTCAAAATTTCTGTGATGCTTTTGGGAAATAACAACGT  
TTGACTTAAATCTGAGTTGGCTGCATTTTGTGTTCCACTTTCAATAAACACTAAACTTCAGAGGTACT  
GCCTCCTGACAAGAGCAATACTACAGCCACTAGGATAACACAAACAGAGTAGAGGCACAGTCTTACATGG  
AGCAGCTGCTCTCAAAGCAGCATCTGCAGACCCTGGCCACAGTCCATGAGGTCCAGATCATTTTCATAA  
TACTAAAATGTTATTTGCCCTTTACACCATACTGACATTTGCACTGATGGCATGAAAGCAATGGTGGGTA  
AAAGATCCGGCCTAATATTAATCAAGGCAGGAACCAAGTATATTCGTTGTTACTGGGTCTTCTGCT  
TTGATGTATTTATAGTAAAAAAATTCATTTTCTTAAAGATGTCTTGTATAAAAATATGTGTCTTAGT  
TTATTTGTGCTGCCGTAAACAGAAATATCTGTGACTGGGTAACCTATAAAGAACAGAAATTTATTCTCACA  
GTTCTGGAGACTGGGAAGTCCAGGATCAAAGTATTGGTACGTTTGGTGTCTGGTGAGGGCTGTTCTCTGT  
TTCCAAGATGGCGCATTAAGTACATCTTCTTAAAGGGAGATTTGTCGTGTTCTCACACGGCACAAAG  
CAGAAGGGCAAAATGGGTGGACTCCCTCCCTCAAGCCCTTTTCTGAGGGCACCTAATCCCATTCTAGAG  
GGAAGAGCCCTCATGACTCAATCACCTCCCAAAGGCCACACCTCCCGTACTGCTGTGTTGGTGATTAAAG  
TTTCAACATGAACAAAAATGTTGGGGGGAGGGGAGGCAACATTTTTTGGGAGGAAAAAATTCAAACCA  
CAGCAGTATGTATTTTAGTATCTTTTGTGAAAAAATGGAAGTATGCATATGGCACTTCTGCTGCATAC  
CAAGGGCCAATGGTTGAGAAAAGCACTTATGCTACTGTTGAGTTGTAAGCTGAACATATCTTTTATTC  
ACAGAACACTATTTTACGTGAAAAAAGCCAGCTGATAACTGTATTGCTTTCCTTAAATACTAAAAGATT  
TTTCTGAAGAGATAAGTGTTAATATTAACAACATATGATTTAAAGAATATTAGACAATGTGTCAACATTTG  
GAAGATCGGCCCTAACTCAGCTAATCAGGATTATCCAAGTGATCGAGCGTGATGTATAAAATCATGCATTG  
TTAGAAGATCCATTGCAAGTACAAAGTAGGCCAGTAAATTTTAAATGTAACAAAGTATAAAGTTCATTGAC  
ATGGGTTTAGATTCCGTTTTACAATTAATACATACTTGCATTTGTTGGGTTTTAGTATAGTTTCAAAGA  
AAAATGTCCACAATTTCAAAGGACTATTAATAATTTCTCCATCTTCCAAGTGCATGTCTTTGAGAG  
GCTGGATTGTCTTCTTATGACTTAAAAACAAACTACATGCTTCAGCAGATCAAAATGCAGAAACATTTGCAG  
CACCCACATCTGTCCATTAGGTGGGTGCAAAAGTAAATCGCGGTTTTTGTCTACTTTTAAATGGTAAAAA  
CTGGAATTAATTTGCACTGACCTAATATTAAGCCAGATATTAAAGAGATTACAAATACATAAAACAATG  
TCACTCTTCTCATTAATTTGTTTGAATAATACTACTTTAAAAAATGTTTACTTACTACAGCC  
TGGGTAACACAGTGAGACCTCATCTCTAAAAAAGAAAAATAAAAATAGTTATTCCTATTAATATGATG  
GGGTTTTATTATGTTGCTTAAAACTAAATGAATGTTTTTACATTTCTGAGTTTAAATTTAGTTATCAAT  
GGATATAATTCATATAAACAAGGCTCTCTGGGGTCTTGATTTTTTAGCATAGGGGAAATCTAATATT  
TTTCAACTACTGAGTCTTCACTGAGTGGGAATATTGATCCACCATTTAACAGCTGTGTCTATCTTGC  
ACTCTCCTGTACTCTACTGTAGATGTCAATCACTTGCCCGAGGTCTCACAGCTGGCGAGTAGTGAATC  
TTCTTTTGGAGTACCATATTAATGCTTGCCTGTATCAATTTGATGGCAAGAAAAAAGCAGCTCTCTAT  
TACCCTTAGCATACAATCAGTTTTTTTGTGTTGTTGTTTTTATTATAGAAATGCTACTTCAAAAACA  
AAGACTGAAAAAACCTAGCAACAGATGGTTAATCATGCAACCATTTGTAATCCACAGGACACTGTT

FIGURE 1, sheet 59 of 66

TTTTTATTTTTTATTTTTTTTAAATTTTTTTGAGACGGAGTCTCACTCTGTCAACCAGGCTGGAGTGCAGT  
GGCGCGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTCACTCCATTTCTCTGCCTCAGCCTCCCGAC  
TAGCTGGGACTACAGGCGCCACCAACACACCCAGCTAATTTTTTTGTATTTTTAGTAGAGACAGGGTT  
TACCGTGTAGCCAGGATGGTCTCGATCTCTGACCTGTGATCTGCCCCGCTCGGCCCTCCCAAAGTGC  
TGGGATTACAGGCGTGAGCCACCGCGCCCGGCCACAGGACACTGTTAATTCTGACATATGGCAATATGT  
CAGTATGGCAATACTGCTTAGAATATGGAATTTCTTACATAAGTATTCAGGGTCTTCACTGCTGAAG  
CCCAGCCTGCCTACACTGCCTGACTCTATCCCAGAAAGTCAGGTTGTCCAAATATCTGTGTGTATATC  
AGGTTCCTTGGTACCAGAGCAAATTCACATCAAATGCTTCAAGCTGAGGCCATGGGCACTTAAAAAGCC  
CTCCATTAAAGAAGGAGATGCGGCAGCCCTGGCTCAGTTCTGGGATTAGGACTGCCAGGCTACAAACA  
GATAAGGCTTCTCTTGATCAAACATCAGGGGCTATAATTTTGTCACTTTTATAGTAATGATAATTATATAA  
TCATCTATTTTATGAAATAGGGATGGAAGTAAACACACAGAAATACCTTCAATTGTTACAGAGAAAC  
AGGTGTTACACTGCACCACTAGAAAGGCTCCTAGACACCAAAGGCTTAGTAAGTATTAAATAAATGCACCT  
GATGGACAAATGAAACATACCTTTATGAATGAAAGAAACATACCTGTAGTTGTGGCAGCTTGTCAAGCTTG  
GTCTGGTGACATATGTTCAAGGAGAACTGAGCTGAATAATTATTTAAGATCTGTTTCAAATTTTCTATT  
TCTTCATCCCATTCATTGGTCTGTTTTATGACTACCTATAAAATAACCCCAAAAAAGAAATCTTTGTC  
ATAATCTAAGCAGATAATGGAATTTTCAATTGTCTAGCCCATGGAAGTTTAACTACATCAGAGCAAA  
TATGCACCCATTGAGATTTCAATAGGACGTGGTAGCCTAAACAGAGAGAAGAAATGTTTGCAAAGCTGACA  
CCTGATCTTCTTCTCTACTAGATGCCAGGGCACCTTGGGCAGTGCTTAAAGTACAAGTCTCACTGGACA  
CACCTTTGCTCTTAAGTATTTCTGGTCCAGTGGGTTTATTCTGGAAGCATTTTATGGCGTGTTAACATA  
AAGTTGTTACACTGCACCACTAGAAAGGCTCCTAGACACCAAAGGCTTAGTAAGTATTAAATAAATGCACCT  
GAGCGGGGGGGCTTTCCGCATAGAAAGGTGACATAACAATTCAAGTGAACAGAGCATGTGAGGTCAAGT  
ATGATGGGTTTTCCCGTCCAGACTCATCTTCACTGGTACCCCTTGGGATCAGTGATGTGTGTTTTACG  
AGTAAGAGGCTGAGGGTTCAAGAACAGTCTAAATTTGCAGAATAAGAACTAACAGAACAAATACCTGGCA  
TCTAGTGCTAGGCGGAGGAGCAAGGAGTCAAGCTTATCTGTGGACTAAATAATGATTAAAGCAGCATGAAA  
AACAAAGAAACAGACTTCAAAGAAAACTAGATACTTCTTTGGTATGCTACATAATGAAGCAAAATGCC  
TTTTAAACTACAAAGTTTCTAGCCAAACAGAAATTTCTCTTGTATTTCTTTAATATTTAATATAAT  
TTTAGCCATAGGCTGGAATGAATAACTATGTTCACTGTGCACATCTGTTCCCGAGCCCTCAATAATGAA  
CTACATCCCGTTCTCTCCCAAAAGGAATTTGTCTTATTTCTACAACGAGGGTACTTACAATATCTAAA  
GTAGAAATCAAAGGAAATGTACCATATTTCTAATGATTGTCTTCACTGTCTTCTTCTTCTTCTTCTG  
TATGAGGGGACATCTGATTGCCACCAGCAATGAGATGGAAATTTGAGCAGCATAGTTTGATACCTAA  
CTTGGCACAAAACAGAACTGCCTCTTCTATTTCACTTTCGTCGTGAAGAAGCCACTTGAAAGCATA  
GTTAGGACCGTGGCTTTCTTTCTGACAGGAGACTAATAAGCACAAAAGGATGAAAATAATGGATCA  
AATTTTATATTTTTTCTCTTTATATTATTACAAGGTAGTACATTGAGTGCTAGATCTTTTTTCTCTCTG  
TAGGTGTACAGAAATGACATCAGTTGACCAGCAGCCAGACCAGAGAACTGAGTTAAGACTCAAACAGAA  
GATTACAGTCTCCTCAAACCTTAGGAGAACAGAGTGGCCACCAAAATGTGCATGAAATTTAAGAGGAAA  
AACATATAGTCAATTTTCTTCTTACAACCAAGGCGGTGATGAAAAATGAAAAATAACCCCTTACAGTA  
CCCATCTAATCAGGAAAGGCAGCATGCAGGAGGTTGACGGAGACGGTTGGAAGTCTGTGCAGACTTTCTG  
CACTTTTCTGTTCTTGTGGGAGTGATTATTGATCCAGGAATACAAACTAAAGATTATTCTTAACATGA  
TGATTCCTGATGGAGAGTAGTGATTAAACAAAACCAACCAACCAACCAACCAACCAACCAACCAACCAAC  
TCTTGGGAGAGATGAAGAATATCAGCTCTCAATATGCAGAAATGACACCAAGGAGTTTGAAGAACTCAA  
TCTTGTTCATGTGTACATAAATTAACCTCTACACAAGTTAACTCTGTGGTCTTTCAGCAAGTCACTTAA  
CCCTGATGCCAATTTCTTATCTGTAAAAATAAAGATAAAGTGCCTACTCTACCTACATCAGCTTGGTA  
ATGAGAAAAATCAATAGGAGAGTCACTGAGATGAACACAGAGATTACTATGGTGATGATTACTTTACAGAT  
CTTGTGGCTCAGAGGCTTCCGATAGTAGGCCCTCAAAGTGCTTATTGACTTGAACAGAACTGTGCTGC  
GGTCAACAACCTGTGGAATGAAATTAATAGACCATAACTATGCTTTAATGTCTTAAAGGATAAGAACTGA  
GAAAAATAACCTTAGCTCCATTTGAGCATGAAGATATGCTTTTATATCAAATGCCACCTCTACAATAAT  
AGGATAAATAATGAATTTCAATTAGAAGTGAAACCAACCAAGCTTTTGGTGAACATTTTCATCCAGTAAG  
TTGGATGTCTACAGAACTGCTTACCTTAACTCAATTTTGTCTTGAATGACATTTTCCAATGTTT  
TATATCTTGTAAGAGCTGATTTGTCCGCTGAAACACAGGCAGAGGTTTCACTTCTGTTGGGGCAACCTC  
AGTTCCACTTGGTAAGACACTATCTCAGCAATGGTTTTCTTCAATGGGACGTATTTTTCAAGTATGACCT  
TAATTATATAAGAGGAGCATGTTACAGAAATGAAAGACAATGGCCACTGTTAAATTTAATTATCAAAA  
TTAAAAATACAGTATAGTTTTATAGTTTGCATTTTAAATAAATTTCTAGCTCAGATGAAAAGAAATTA  
TTATATCACTCATGATCCGGGAGTTGAAAGTCTCAGGAAAGAAATAACTGGGGCAAGAGTAACCTACCAAT  
ACTAAATACGCATTTGGACAACCTTTTCTTCTTTTCTCCCTCCACTTTCTGTGTAGAACTGGCGTTCT  
GCTGTGTATATTGTCACTAGGCAGTGAGCAATGAAGGGCAGGTAAGCTCTCACTTTCTGTAGCAACTA  
CAGCTAGCACAGGACTTCCGATAGTAGGCCCTCAAAGTGCTTATTGACTTGAACAGAACTGTGCTGC  
ATGAGTCCCAGGAGTATAATTATATTTGCTTTAATAACATCTGATCCATAGAAATCTGGATTATGTAA  
CCAATACATTAGAAGAGATTACTACCGTACTAAGTCAATCTCATATAATATCATTTCAATTTAATCCCTC  
ACAACCCCTCGAGAGGTAAATATCTTAACCTCCATTTACAGGTGAGGAAATGGGCTCACAGAAGTTAG  
AAGATACAGTAAGCTTAGTCTGTAAGAGGCAGAGCTGGGAACAGAAATCCAGGCCCTCCCTAGTCTTAAAC  
CACATGCTCTCAATCACTAGGCTGAGCAGGGGATCAACATTTGCCTGCTGTTTGTGATGTCTCCAGCTCC  
TCTGTCAAGGGCTCTATTACATTACAATTTGGCCAATGTAATCTCCTCAGTACCAGTGACGGATATGAA  
AGAGAATCCAAAACCATTAATTAATCACTAGTCATGTCAGCCAGTGAGCAGTCTAGCTGGGCTGGAACCCAG  
TTAGCCCTGAATAGGCTCAAGCCCTTGAGTTGATTAAATGAAAAATAACCTATAGGAAATTAAT  
CTTTACATAGGTGGTACTACAACACGATTTAAATATACAGTTATAGTTATTTCCCATCAATTTCCCAACC  
TTATTTTCTTACTCTGGTAAGACTAAATGCTTTTTTAAATCACATTATATATATTTTGAAGAAAGAC  
ATAATAAGTATCATAGAAAATACTTTAAATAAATCTATGCTTACCTCCCATGTTTGAGATGTTCTT  
CAGGTGAAAAATCAAATATTTCTTTTGATAAGGATAGTTTGTATTTTGAAGCTTTTCTTCTTCTTGA  
TTTTACTTCAGATTCAATAGCAACCATCTAGAAATTTGAGAAGAACACACTGATGCAATATATATTGT  
ATATTAATCATCTATAAAACAGTTTATTGGCATTAAATTTATCTCTTATTTAGCCAAATAATGTCTGCC  
ATCTATACCTCTGAAAACTAACCAAGCACTATAGATAAATAAATAGTTTACCATTCTTTCTCTTTT

FIGURE 1, sheet 60 of 66



TTTTTTTTTTTTTTTTTTTTTTTTTCTGAGACGGAGTTTCGCTCTTGTGCCAGGCTGGAGTGAATGTC  
GCCATCTCTGCTACTGTAACTCCGCCCTCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTCCTGAATAG  
CTGGGATTACAGGCAGTGGCCACCATGCCAGTTAATTTTTATATTTTTAGTAGAGACGGAGTTTCGCCA  
TGTTGGCCAGGCTGGTCTCCAACCTCCTGACCGAGGTGATCCACCGCCTCGGCCTCCCAAAGTGCCTGGG  
ATTACAGGTGTGAGCCATCGTTCCTGGCCAGGGACCAACAAACTTTATAAGAAAATGAAGCAGTATGTA  
CAATAGCTGTTTATAGTGATATCTTCAAATTATGAGGAAAAGTTAAATTACATGGACATATTCTGTGCA  
CCTACTATTTAAGAAGGTATATAGAATTATACAATGTATTTAGGGTAATTTTCATCAAACATTATAGAA  
GCAATTTAAAAAATTTTGAATGAGCTTCAGTAACCAAAAATAATTACTTTAACACTTACTATTCCCTGAAG  
ATACATGAGTGTGGTGTAGGGAATGTAAGTGAAGTAACTGTAATAATGAAGAACTTTAATGCCTCT  
ACTATGTACTCTATCTTTAAATAAATGCTTCTGATGTTTCAAGCCAAAATAAAAATCCAGAGGCTGGCA  
AATAACAACCCCTCAATAAATATTTGCTATTGGTAAATAAAGACTTGGGACTACCTGTTTTACTTGT  
TTTAATTCCTTTTTGTGAGAAGGGGCTTACTGTAGTACCCAGGCAGGTCTCAAACCTCCTGTGCTCAC  
ATTATCCTTCTGCCTCTGCCTCCGTAAATGCTGGGATTACAGGCGTGAGCCACCGTGTGGGCACCACGC  
CCAGCCAGAATCTCTCTTTAATTCCTCTTTCTATCCAGCATTTAAAAATCAGTAGTATTTCTCTTT  
GACAAAGAGAAAACACTGAGCTTATTTATCGGGATTCTTACTCTTTAAAAACAGACCCTTCTGGATTG  
AAAATAAGGAGATCTTTTTTTTATGATACACTACAGGTGCAAAAGTAAAGTAAATAATAATCCCAAA  
ATGAGAACATACATGACATTTTACCAGATCAATGTGTCTTACATTGATTAGTTGTATAGTGCTTGGTTA  
GTAGTAACTCTAATTTATTTGACAGAACTCTGCTCTGTCAACCCAGGCTGGAGTGCAGTGGCGCAATCT  
TGGCTCACTGCAACCTCTGCCTCCAGGTTCAAGCGATTCTCCTGCCTCAGCCTTCCAAGTGTCTGGGAT  
TACAGTGTGTCACCCAGATGCCAGCTAAATTTGTATTTTAGTAGAGACAGGTTTACCATTGTGGC  
CAGGCTTGCTTGAACCTCTGACCTCAAGTGTACCCCGCCTTGGCCTCCCAAAGTGTGGAATTATAG  
GGATGAGCCACCATTTGCCAGCCTCTAATTTAATCCTGAATGATTAAATGAATGGTGCAAACTTACATCA  
GCCATTCGCTGAATCTGTGGAAGGCTTTCCATTATTTTTTTGTTGTAAGCTGTTACTTGATTACTTAACT  
CTGTATAGGTGAGGTTGGGTTAATTCATCTGTTTCAAAAATTTATGACAGGTCTTCTAGATCCATAAAGATT  
ATGTAAGAGATTGTGCTTCTGTTCTGAATCTTCCAAAGCCATCTAGATAAACACAGAATGGGAAAAATAG  
AGAGAAACATCAAGATCCTGATATAAGCTGATTAAATTTAAATCAGAGAAAATGAAAGTTATCTCAAC  
ATTTTAACTAGTCATTTCTAGTTCGATAATGAAAACAGAACCCCTCTATTGTCAATGACAGTGAAAGA  
CTTCAGAGTATCTCCTGATATAACTGTAAACATAATAAGAAACATAAATTTTGGTCTTGGTCCACTTCTA  
AAACACTTGAATCCTTTAATAATAGGGGAGAGAGAAGTGTCTTTTATTATACATAATAAGCCCTTTTCAT  
ACATGTAATAACTTTCAAATTTAAGATGTCAAATAGCTCAGCCACCTAATGAAAATGTTTCAGCTTGATA  
ATGTACTCTTCAGGTAATTCATAAAAAATACTGATAGGAGAAAGAACATTCACTTACACAACCTAGAAT  
TTCAGTCCACAAGTCACTAAAACCTAAGTGGGTTATTCAGAATTTATATTAATCTTATTCAAACCTCTTAT  
AGGAGAAAACCTTTTAGGAAAACAAAACCTTAAACCAATGCTTTTTTTTTTTTTTTTTTTTTTACC  
TTATCACTGACAACAGCATCAAAAACCATAAATACTTAGGAATAAATTTAACAGTATACATGCAAGAAA  
TGATACTGGGCCGGGTGTGGTGGCTCCTGCCTATAATTCAGCACTTTGGGAGGCTGAGGTGGGTGGAT  
CAGCTAGGTGAGGATTCGAGACCGCTGGCCAAACATGGCAAAACCTGTCTCTACTAAAAATACAAA  
AATTAGCCAGGTGTGGTGGCGGAAGCCTGTAATCCAGCTACTCAGGAGGCTGAGGCAGGAGAAATCGCTT  
GAACCCAGGAGGCGGAGGCTGCAGTGAGCCATTATTGCAACCCCTGCCTCCAGCCTGGGTGACAGAGCAA  
GACACCATCTCAAAAAAAAAAAAAAAAAAAGACCTGCATACTGAAAATCAAAAACATTGTTGAGAA  
AAATTAATCCCTGAGAAAATTAAGAGATATACCATGTTCTGGATTGAATAGTCACATGTTGATTGATG  
TTAATTCCTTCCAAATGATCTACAAATCTAATGCAATCCCACTCAAAATCCACAGACCTTTATTTA  
GAAATTAACAAGAGATTTCAAGATTTATATCGAAATACAAAGCCCTTGATTTAGCCAAAACAAATCTGA  
AAAAGGACAAAGTTGTAGAATTGATGCTACCTGATTTCAAGACTTACTGTAAAGCTATAGTAATGAAGAC  
TGCTAATTTGGTGAAAGTTCGAGACATATAAATTAATTAAGCAAGAGGAGAGCCAGAAATAGATGACAA  
TGTATAAGGTCAATTTGATTTCCAAAGTGGCGAAGTAATTTAATGGTGATTGTTATCAATAAATGATG  
CAGAAACAAATTGGATATCCCATGGAAAAAAGAACTTGATCTTCAATCACACCTTATGCAACAATTA  
ACATGAATGAATCATAGATCTAAGAGAGTAAGAGTTAAACATCAAGTTACTGGAAGAAAACACAGGA  
AGAAATCTTCAAAAGGAAGTGTACAAATGACCAATAAAGACATAAATAAATGCTCAAAATTTAGTCAT  
TAGAGAAAACCTGTTTAAACCACAATGAAATACCACTGCAAGTCACTAAAATGGCTAAAATTTAAAGGC  
AGACAATATTAAGCGCTGTTGAAAATATGAAGCAATTAGAATGATGTTGCTGGTGGGAAAGAAAATGA  
TACAGCCATTTTGGAAAACAAATTTCTCAGTTTATTTATTTTAAACACATCGTAAAAGTCAAGATCCT  
ACTTTTAGGTATTTATTTATTTGAATAAATAAATGAAAACATTTGCTACACAAAGATTTATATATAAACATT  
CACAGCAGCTTTGCTCATAATAGCCTATGGTAGCAGCCTCTAAGGTAGCCCTGAATGACCCCTACCTCCT  
GGTATTCATACCCCTTATATCAGCTTCTTGAATGCAGGCCAGACTTACTAATTTAATCTAATAAAATGT  
GGCAGAAATGATGAGATGTCATTCCAAGTTAGATTACAAAGACTGTGGCCAGCCTGGGCAACAAAGT  
GAAACCTTTTTCGAAAAATTTAGAAATAGCCAGGCATGGTTGTGTGCGCCTGTAGTCCCACTACCTGG  
GAGGCTAAGGTGGGAGGAACATTTGAACCTCAGAAGGTGGAGGCTGCAGTGAGCCGACATTGTGCCACTGC  
ACTCCAGCCTGGGTGACAGAGCAAGACCTGTCTCTAAAAGAAAAAATAAATGTGGCTTCTGTCTTGA  
CAGCTCTCTCTCACTCTCTTGGAGATTGTTTATGCTGAGGGAAGCCAGCTGCCATGGTGTGAGGCAGACT  
CCTGGAGGAGCCCACTGCTGTAAGTAGAAGCAGATCTTTGAGGCTGTCAACAGCCACGGGAATGAG  
CTTGAAGCAGATCCCACCTCCTCCCTCACACAGTGCAGCCTTCAGATGAGCCTGCAGCCTTTGTGAGC  
ACCTTGACTGCATTCTCATGAGAGACCTTGAAGCAGAGATCTTAGCTAAGCCATGCCATGGACTCCTG  
ACCCACAGAACTGTGATAATAAGTTTGTGTTTCAAGCTGCTAACTTATGGAGTAATATGTTACACAAA  
AATAGCTAATATATAGCTCAAACTGGAAGCAACCCAAATATCTAATACTGGTAGATAAACAACTACT  
CATTTCCAACTTATTTCCAACTGGAACACTACTTGGCAATCAAATAATTAATATGCAATTAAGTGTA  
ACAACCTGGATGAATCTCAAAGCATTTATGTTAAGTGAACAAGTGAGCCACGTAAGACTACATACTGTT  
TGATTCCTCTATATGATATCTAGAAAAGGCAAACTATAGTAATAGGAAACAGTGAGTGATCACCTAG

FIGURE 1, sheet 61 of 66



GGTTGAAGACAGGTGAAAGGGGATTGACTGCAAAGAGGCAGGAGGAAACGCTCTTGGGAGATGGAGATGTT  
CCTTATATTGATGGCGGTGGTGGTTACACAACCTGCACCTTTATCAAACTTACCTAACCTGCTACTTAAAA  
TAGGTGTATTAATATTTTACTGTATGTAATTTATACCTCAATAAATTTGATTAAAAAACAGGCCGGGT  
GTGGTGGCTCAGCGCTGTACTCCAGCACTTTGGGAGGTCGAGGTGGGCAGATCAGCTGAGGTGAGGAGT  
TCAAGACCAGCCTGGCCAACATGGTGAATCCTGTCTCTACTAAAAATACAAAATAAGGTGAGCGTGGTG  
GCACACGCTGTATCTCAGCTACTGGGGAAGCTGAGGCAGAGAATCACTTGAACCTGGGAGGTGGAGG  
TTGCGGTGAGCCAAGATCGCACCATTGCCTCCAGGCTGGGCAAAAAGAGTGAAACTCCGTCTCAAAAA  
AAAAAAATAGTTTCTTATTTTATAATGTCTTTTATGAATGTATGTTTCAGTTATCTTACAAACAG  
TAGTATTTGTGGAATTATCTTTAGGTTACAAAGACCTGTTTTAACAAATGCAATCCAGGTAGAAGGGTAT  
AGTGCAATTAAAACAACATTTAAAGCTTAGTTGAGAGTCTGACACTTCTTTAAAGTCAATATAAAAA  
CTAATACCTGAATATGCTAGAAAAATGGAAAGGGCATCTAAAGTAAGATTATTGCACAAATGAGGATT  
TCAACATAGGACTAGTTATTTGGGACTTACTTCCAGGAGGAGATTAGGACACATCGGGACACATAGAAAT  
AAACCCGAGCCTTCCCTTGTCCCTACTTCCCTTCCCTCAGTTCTAGCTCAGAAAGAAAGTCTAGCAATTTAG  
AATGTCTTGAAGTTTGAAGATGCTTTTACATTTTACATGTGTATCAGTAGAAGGTAGCAAAATCCCAG  
CTGCTTTTGGCTGAGCTCACTTTTGTACAGTTTTTTTTTTTAACTCATAATAAGCATTTGAAGGAAAAAA  
TAGAAGCAATAGCTTCTCTCTCTTGTCTTGGTAAAGTCCCAAAATAGTGAATCAGGAGGTGATAAAGT  
GTTTAAAAATGACAACTTTGGGGATGTGGAAGTTAATCCAAGTGGGGGAAGGCAAAAAAATCACAAG  
CAAGGGGAGAAAGAAAAAATGGGTAGAAATGCAGCATCTTACAACTGTTACCGTAAGAAAAAAT  
TAGGCCAACGATTCTCAACGTCAGGAGGTCTGAGGTGAGCAGCTCACTTAGGAACACACTGTGCCATT  
CCAAAGATAGTGAAGGAGGTGAATCACCCTTGGAAAGTCTGATTCTGTAAACACTGTTACCAATAAGCTT  
TTCTCTAAGGGATTCTTCTCATGGCAGAAATAGAGAAGGGGAACACCTGCGCAATGCAACTTCCCTA  
GTACTCAGCATCCGGAAGATGTTTTCAGCCGAGGCCTCAAGTGGGAAACACTTTCATTTGTTTTGACT  
TTGTAAGCCAGCATGGACACGTGGGGCATGTGTGGAGTACCAGCAAGGACAGGAAATTTGGAATCATGGT  
GTGTTAGAAAGTGAAGGAGGACCTGGGTTCTGTTTTCTATTGCTGTGTAACATAATTACCACAACTAATGG  
CTTAAACAAAAACAAAGTTATCTCAGAGTGTCCAAGGGTAAGGAGTCCAGGCATAGCTGAGGTGAGTCT  
CCTTACAGGGAGCCACAAGGATGCAGTCCGGTGCATCTGGAGCTTGGGGTCTCTTTTGAAGATCATTCA  
GGTTGTTGGCAAAATTCAGCTGTAGGACTGGGTTCCCTGTTTCTTGTGCTGCTCTCATTGACTCTCAGCT  
TCTAGAAAAGCCTTTGGGCCCTAGCTCCATGGCCCTTGACAATATAGCCGCTTCTCAAGAAGAATCT  
CTCTGCACTCTGCTGCAGGCTGAGTAGCCCTTATCTGAAATGCTTGAAGCCAGAAGCATTTCAGATTTTG  
GACTTTTTCAAAATTTTGGAAATGTAAGTATTATCTTACCGGTGGAGCATCCAAATCCCAAAATCCCATA  
TTAGAGAGCCTTATAATCACGTTAATCAAGTACTTATGGGAGTGAATCCCATTTACCTTAATCATATAA  
CGTAACCTAGTCAATGAAGGAGCTATCCCATCATATTCTATTTCTGCCCACATTCAGTATTATCTTT  
CAGGTCAATATACACAGAGGATGGGAATATTGGGGGGCATCTTAGAATTCTAACACCAAAACCATCAGC  
ACTATCCTATGCACATTCTTTTTTTTTTTTGGAGCGGAGTCTTGTCTTGTGCGCCAGGCTGGAGTGCAGT  
GGTGCATCTCGGCTCACTGCAAGCTCCGCCCTCTGGGTTACGCCATTCTCTGCTCAGCCTCCCGAG  
TAGCTGGAGCTACAGGCGCCGCCACCGTCCGAGCTAATTTTTGTATTTTGTAGTAGACAGGGTTCT  
ACCGTGTTAGCCAGGATGGTCTCGATCTCCTAACCTTGTGATCCGCCACATTCCTATTTTCATGGGGAGA  
AACTGAGGTCCATAGAAGATATACTAAATTTATCCAAAAGTCAAAAGTAGTTATCAGGACAGTAAGAGC  
TGAATCCTGGTCTCCAAATCCATGTCTACTGCTTGCCACTCTCTCAAGCTTCTTCTGCCACTGCATG  
GTAGCGGTAAGCTTTGATTTTCAGGAAGGAGGAAAGCAACAGACAATCAGCTAAGCCACGAATCT  
TTATGTAGATGCTATGAGTGGCAGAAAACCTGGAAGAACTTACCTGCACAGTGTAGCATGGTGACTC  
AGTGTCTTCAAGAGTCAATAGTACGAGGATTGGCCAGCAATGACTGGTATTTCTATCCAAAGCCTCAG  
TGCTCTTTCAGAAAGTCACTATATCTCTCATCTTAACTGTGGCTGGGAAAGAGATGCAGGACCAAACT  
AGTCTGGAGCTTCTTACTGGAGCTGAATGACTCCTAGATGAAGAGTCAATAGCTGTTAGTCAGGGGTGTG  
TCAGGCCCTGAGATGTCTGCTCCCCATGGCTGGGGCTACTTATTCACCTGCTCTAGGCTATGACACTTC  
TGACTTTTAAAGCTAACTCTGACCATAGGTGGAAGGATTTAATCAGTTCTACTCCAACGTTATGGGCCT  
CAGCAAAAGTTCTGGGTTAGCCTTGCAAGTATTCTGGTTCTCATTTTATGCTTCAATTTAAAACTGGACT  
GTACTTGTCTCTCTGTTTCCAGGCTTGCCCTCAGATTCTTCTAAGACTAGGATGCTGCTCCTCACTCTGC  
TAAATCACAGACACAACCTCAGCCAACACAGCTCCTATTTGGAAGGAGGGTAGAGAGGGTATCTTTCCC  
CGAATGACAGTCTTTCTCATTGTTGTCTCCCTTACTAGACTCCTGAGACCACCTGCCCTAAATCCCATT  
ACTGGTCTTTATCCACCTGTTGGGGAGCCTGGACTTCCCAACAGTTTGCTGGCTCTTGTGTGGTCAAC  
TTCTGGATTCTTGGTTCTGTCTGCCCCAATCAGACTTCTGCTGCCTAGCATTGAAATCTGTCTCCTCA  
GCACCCACACAAGCCTACCATGGCCCCAGCTTCAAGTCCAAAAGTGAATTTCAACAGAACTGACTGTT  
TCTGAATATATTGTTTTGCTTTAACACCATCTCAATACCACCACATGATATGAAGCTATTACGAGTCACA  
GCCATACCTTATCAACTGTGAGGTTCTACACTCTGCTCTGTGATACTTGTGATACTGCTGGAAGG  
AATCATCAAGTTATCCATCCATTCTTGAAGCTGCTGCTGGGTCTGTTCAACAATGCTTGAACCTCAGAA  
TCCAGCTCATTATGTTTGAATGCCATAGATCTAACTCGTCCCACATTTTCTGGAGAAGGAAATCGTAAG  
TCAACTTGAATGAAGAGGTCAATGTTTATGGAGGCAATGCCTGGTTTTTACACAGTATTACATTTATAA  
ATGCTACTAAAACATCAGAGAAACACATCAGTGAACAGTGTAAATTTATACCCAGCAATTTGTGATC  
TAAACTGAAAAACACTTTTCTGAGCTTCTTAACTCAACTGATTTTCACTACAAATTTAGCTGTGA  
GGGGAACAGAAAGACCTGGACATTTTATAGAGTACTGACACAAACAAGGTCAATATAGCCCTCATCTCT  
CAAGAGTGACAAGCAAAACATTCTGTTTAAAAAGGGCTTGGGGAAGAGCTTGAACCTATTACACTAGTT  
CATACACACACACGCGCGCACACACACACACACGCTCTATTAATCTACAAAATAATTTCAAG  
TGAAAAATTAATAAAGAAAGAAATATCTGGCTGGGTGAGGTGAGTGCACAAATTTGGAGGCCAAGGTG  
TGTGGGCTGCTTGAAGCCAGGAGTTCAAGACCAGCCTGGACAACACAGGGAACACCGTCTCTACAAAAC  
TTAGCCAGGTGTAGTGGCGCACACCTGCAGTCTCATCTACTTGGGAGACTGAGGTGGGAGGATCAATTGA  
GCCAGGAGGTCAAGGCTGAAGTGAGTTTGTATCACACCATGCAGTCCAGCTTGGGTGACAGGGTGAGA  
CCCTATCTCAAAAATTTAAAAAAGAAAGAAATATCTGCTGACTTGGGATGAATGCAGAGGCAGAA  
GCTCTAGAAACATGTATTAGGAGCACTGCTTTTGACTCAAGAAACCAATAGGTTGGATTCAATCTGAA  
CTTCTGCTGGGCAGAGGAAATTTCAAAGTAAATATTCAATCTTAATGTTTCTTAAAGAACATTTTTT  
TCCCTATCTTGAAGACTAGGAAATCTAAGTTGTTAAATAGGTTTCTGCTTAAGATTGTCCAATAG

FIGURE 1, sheet 62 of 66

TGAGCCATACTCTGACCTATTTTAAAAGCCCCAAATTATTAAACATTTCCCTTAAGACATAGATTAGAAC  
 AAGAATCCTTTTCCCTATGCTGGAGTTTACTTGCGAATTAAGAAGGAGAATAGTGTATGTACAGTTTGT  
 CCTAAGATTTTATTTTGAAGATATTTTACAAGGAAATAAAATTGGAATTTTATTTTATTTAAACCTT  
 TGCAGTCTAAAAAGAGCTTTAATATTTTTCATATTCTATTGAATGATTTTATGATCAGTATCCCCAAG  
 ATAAGATCCTTACTTTCTTTTACTTGTGAAAATGCTAGTTTCAATACACAGGCTCTCAGAAGTTGGGTA  
 TATGCCACCATTGAAAAACAGAATTATTTTGTAGACAGAGTCTCACTCTGTACCCACACTGGAGTG  
 CAGTGACATGATCTGGCTCATTTGCAACCTCCATCTCTGGGTCAAGTGATTTTCTGTCCTCAGCTCC  
 CGAGTAGCTAGAATTGCAGTCTTGTGCCACCACACCCAGCTAATATTTGTATTTTATGATAGATGGGT  
 TTTGCCATGTTGGCCAGGCTGGTCTCAAACCTCTAGGCTCAAGTGATCATCCCACCTTGGCTCCCAAAG  
 TGCTGGGATTACAGGCTGGGTACCCGACCTGGCCAAGAGAATAATTTTAAATGCAACTTTCCCTATC  
 AAGCTCTCTAGGTGATGCCCTGTGGATTGGTTTACAATTTCTGTGCTTCAATTAATCAAAGAACT  
 CACCTGTGGTCTGATGAACAAGGAGGAGTGGGTGAGAAGTACCAATGCTGAAGGGAGTTAAAGGA  
 GGATTTTACCTTTTGAATTTCTTGAGCTTTCTCAATATTTTGTCTTTCTGCTGCAACATCTTTCAACA  
 TTATGAAGCCCATTTGTTAATTTCTTCTATTTTCTCCTCATTGCATATGATGGTGAGCTTTTAAAGACTT  
 CATTGCTAATCTGTGAAGAGACAAAGACGCATTTGGCTTAGAGAGGTGTCTGCACTTTATTCATAGGT  
 TCGAACACAAAAGTGGTAGTCACTCTGTTTTAACTTTGTAATAATTTTAAAGGGCTGGGGGAAGAAAT  
 CTGGCAAATGCATTAATGAGAAGTGGATAGGAAGACTAATAAATGGCAGGTGTGTTTACTTCACTTTT  
 AAATCTCATCTTAAATAAAATAAAATTTGGTTTTTATTTGTACTGTAATACATGTATTGTACATGTAT  
 TACAGATATATGCTGTGTTGGGCAAAATTTACTGAGTGGATTGTGTGAACATTTCCATATGGATCAAATG  
 ATATAAATGAATCTGATGGGGATAAAATTTTATATACAATCTTTCCATTTTATGAGAATCTATCTGCAT  
 AGATCTGTTTTTCACTAAAACCAAACTTACTCTCAAGCTGACTTTTTTAAAAAATGTAATCCAATCATA  
 GTATTCATTTGGGTGAAACAACCTTCTAAAATGGCATTTCTTGAGGATGCACAGAGCTTAATATTCTC  
 TGTGTAACCATTTCTAGATGTTTTCCAGCCATCAGAACTTAGCTACTGAACAGCGTAATTTTTTTT  
 TCTAAGCATTCTCTTAAAAAGAAACAAAAAACCTTGAGCTAGGAAAGATAATAATGAATGTTGAAT  
 GTATCACTTTCCAAATACCTGACTGATGTGTGTTCTTGTGTTTGTATTTGATAAGGCTTTCTCCAAGCAG  
 CTACTAATAACCAATAATATCTTTATGCTTTTGTATATCTTTGTTTGTAAATAAAAAATAAAC  
 TCTATCTGTATAACCATTTAGACTAAAATCATCTGTGCAGACAGTATACAGATGCTGAAACTGTAACAC  
 AGACTAATGACTTGTCTAGCTATGTCAAGGAAGTAGCTGAACCTTCCCAAGAGCGCCCAAGTCC  
 CTAGATTGAGTCCCAGGCTCTATTACAATATCAGGCCTTGATACTTTTATATCATGTCTTTATTCCCA  
 GACCATACTGCAGTCAATATTTATAGAAAAAATAATCCCACTTTGGTTCCATATTAGCTTTTCATGGC  
 TGGCTGTGTCAAAATTACCACAAGAAAGTTTTCTGATATTTTGTAGCACTTATTCTCTGGCAGAAATG  
 TATACCATTTAGATACATTAGGACAGATCATGATTTAGGAAACATATGTAGCCATTTGAATATACACAA  
 TGTTACTATGTCTGTCCCCGGGATCCTTGAACCTTCTTTAGCTGTATCACACAATAAAATTAGTTGCT  
 GTTTGTTACAAATATAGAGGGTCATAGCGGAAATTTTCTACCTTGAATTTGAACGACTGATTTTGATTAT  
 TAATTTACTCTGCTAGGGATTTTCTAAGTATTCATGAGCATAACATTTAGTTTCTCTCAAAATTTTAG  
 TATTTTCTGAAATAAAATCAATAGATTAACGAGATCCTTGAGAAAGTACGAAATAGGTTTCTTGTGTGT  
 AACTAAAAAGATTTGTTATAAATATACGTTAAGAGTTTACATATTTTACATGTGAGATTTTCTGAG  
 AAATCTGTATAGAAATTAATGACATATCTAGCAACTAAGTTGAAATCTGAATTTTGTGTTAAGAT  
 CTATTTTATTTATCAAGTTGTAAGTATCTAGACAAAAAATAAATCCTTCTGTGGATACACAGA  
 CCAAGCAAGATTTTCTCTGTGATATGAGTGGCTGTCTTCTACAATCTAATCAAAATATCTTGTGAAGCT  
 CCTATGTTTCTAGTATTATAAAATATTTTCCACCTTTTCTTAAATCTGGACTTTCAGGTATAAAGATTT  
 GCTCAGTACTTTTCTAGAGAAATCTGTTAATCATCATGTTAGACAGACACTACATACTAAGTGCTATTC  
 CTAGTGAGTTGTGAATTTGTATTTCTATTGCTTGTGTAATGTCAAAATGTTTCAAAGAATGTATTT  
 TAAAGCAAGTATTAAACATCAATAGTGTCAAGTGGTTGTACAGTGGTTGTACAAAGCAAAACCA  
 GTAAAAAATATTATATAACTGTATTATAAATGCAAGAGAAGAATAAGCATTTTGACAATTAATACATA  
 TAAATCATCTAATTTCTGTTATCTTATGTCACATATTTAGAGCATCTTTATCTTAGCATTCAATAGACAG  
 ATGGTCACTTAACTCTTAAAGAAAGTTATAGCTGAAATCCTGGCAATGGAATTTGACATTAATGATAT  
 TTTCTCTTGTAGTCACTTCCGTTAAATAAATCAAGTAGTACAGACATTATTATTACCTTCTCATC  
 TATGTCTTCTAAAGCTTTTCTGCATTTCTCCACCTGGGATTCAATCTCTGCAGGGACTATGGGTGACATT  
 TCGGAATACTTGTATCGCAGTTTTCATATAATTTCTCAAAAGTTAGTTCCCTTTCTTAAAGGATGCTTT  
 GAAGCTCCTAAAAGCATTAAGAGAGTTGCAATACTCACGAGACTGGGGGAAAGTTTAAATCTAAAAAGT  
 GAAAGCAGCTTCCAGCACATCCTTATGATTTAAAGGAGTGCAAGTTTGCATGACAAACCCCACTAGTGA  
 TACAAGCTGATTAAGCCCCAGAGACACTCAGTTTAGTCAGATGATGCTTTCTAATTTGTAAGAATTAAC  
 TTGATATCTCTCATAGTGTACACCATTTATCTAGAAAGACATTACAAACCCCTGCTTCTAAAGTAC  
 CTTTAGGATTTAATTTGTATCTCCATTGCAGTCTGATCTAAAAAGCTGCAAGCAGCAAAAAAATAA  
 AAAAGTTTCAAAGAAGTTTTTTGTTGTTGTTTTAACGTGTGCTATTTCTACTTCTTCTCCATTATCAT  
 CACAATGATTTAAGGCCACTAAAAGCCCCACACTTGGAGCAGAAGTGTCTACTTTTATGTAATTAGACAG  
 CCCTGCAGAGCTCAACTGCTTTCAAAGGGGAAGTTCCAGTTCCATACAAAGAATGTAGGTTTTTAGGAG  
 ATAAAAGAACTGAACAAATAGTCTATTGGTTGTGGCTAGAAACCAATCTGATCTACCTTCTCTCTGC  
 AGTAATTTAAGAGGAACTCAATTTGATGGGAAAGTTCCCAAGATCAAGTGGAATAAATCTTTG  
 ACTTGACTGTGGCTTTTTGTTGTTGTTTTGTTTTTACAGTAGCTGTTTCACTAGCATTTATTGTGTTCA  
 TGGATTGAGTCACTGTACTGAAGAATGATTACAATTTTAAATGACTCTGTAATGTGTCATTGTTTTCTCT  
 TTCTTAATCCTCAGCAGAGGACAAATCTAGAGAGAGAAAGTTAGAGAACATGCCATTCAAAGATGGGGT  
 TTAATAAGTAAAGTGTCTATCCCGTTTTATCTACACCTAGTCCAGGAGTACAGGCTTTTATTAGAGGTACA  
 CTTAGAAGGCTTCCCCATGAAGACTGCTTCTTACTTTCCAATATAATAACCAAAAGTTCTGTTTAGACA  
 GCATGTGACTTTTTTTTTTTTTGAGATGGAGCCAGGCTGGATTGCAGCGGCACGATCTCGGCTTACTACA  
 ACCACCACCTACTGGGTCCAAGTGATTCTCTGCTCAGCATCCAGTAGCTGGGATTATAGGCACACGC  
 TACCATGCTTGGCTAAATTTTTGTATTTTATAGAGACGGAGTTTCCCATGTTGGCCAGGCTGGTCTTG  
 ACCTCTGACCCCAAGTGATCTGCCTGCCTGGACCTCTCAAAGTGCTGGGATTATAGGTGTGAGCCACCA  
 TGTCCGGCCAAACGCTGACTTTTGAATAAACTTCCAACATACCTTTGGGCTGTCACTATTGGACTGGAA  
 TGAAAGAGGAGATTCTCTGAAGAAATGAGATTCCAGATGACCTGTAGGGTGTACATAGACCTGTGAGA

FIGURE 1, sheet 63 of 66

GACAAGGCGCCATGTCCTACTAAAGGAGTAATGTAACATACTACTTAAGAGTGGTCTGAGGCCCTTGTTT  
ACCAAACACACTGGAAACATAGTTGAAGAAGGCTGCTTGGTCCAGACTGGCCCTACCTTCCAGCCCTTGTT  
TCAACTCTGTTTCTGCTCTCCAGCCACACTGATCTTCTCCCTGGTTCTGCCCATACCATGCCACAGGG  
CCTTTGCCTATGCTCTCTCTCTCTCCCCAGACCGCTCCCCAAACCCAGCCACTGAGTTATCTCTACCC  
CAAGGACTTTGGATACAAAGACTGTGGGCTGTACCTGCCACATTCACTAATTCACTTCTCACTTACCTCA  
AATTGTTCTGACTTTTCTGGGTGATCCTGGAATGCCATATTTTGAATGAAGTTGTGGTCTGTTGAAAGA  
AATTCTTCAAAGCAATTATCTTTTGTGAAGGAATGTCTTTCTGGATTTCAGTCTGCACCAATTCTTT  
ATTTTTCTGAACCTTCTGAAGAAGCCTAAAGAGAACGTCAAAATATAATTGTTTCTTTATCTGCTCTT  
CTATGAATAAAATGAACAGTTTATTGCAACAATTAATGAAATGCCTGAATAGCTACTAAAGGATGGTT  
ATTTCTCTAAGAAAAAAGTAACAATTTTCAATAATGGATGTACCACATATAAAAAACAGGTACAAAATC  
TACCACCTTAATCAAAAACCTCTCCAAATCTTTCCGCTCAAATACTCTCTTTTACACTTTACATTGTAAC  
TGACATTTCTGTCTCTCTTTTCTCCACGTAATCCTTGAGCTCACATGAAATGACTTAGAGGTGTGAA  
TGGAATCACAGGTGGGCTCTTGGGGACAGACAATCCCACTGGGCTTCTCTCTTAAGCTGACCCATTTG  
CTATGGATGCAGCAAAATATCAGAAGAGGCACTGAAGTGGGTAAATCTTTCTGAGGGTTATTTGGTAAG  
TATCTATGATATTTGTATATAATAATATATACTTGATCTCTGCTGTAGTTCTGAGACAGAGCTCTTAA  
TACCCTTTGATAGAGGTGCTAGCTAGGAGAGTCTTTTGTCTAATACTTTGATTTTTGACCAAGTTGAA  
ACACAGAGCTCTTAAGCCCTTTGTAATTTCTGAGTGATAGGAGCATCTTAGTTCTAAGAAGGCAACTC  
TAGGTGGGATCTGAGTAGCCTCAGGATGAGGGCTGGTGCCAGGGGAACCAACTATGTGATTAAGGT  
TGGAATTTCACTACCAACCTTACCTCCAACACACACCCCAACCTCTGGGGGAGGGGACAGAAGCTGAA  
GGTTGAGTTGATGAGCAATGGCCAATTACATAATCATGACTACATAATGAAGTCTCCATAAAAAA  
CCCAAAGACAGGGCTCAGAGAGCTTCTGGATTGCTGAAAGCCTGGGGGTTCCACCACCTAGAGAGAGCA  
GGGAAGCCCCAGGCCCTTCTTATACCATGCCTTAGGCACCTCTTCCATCTGGCTGTTTATCTGTATCTCT  
TCATTATATCTTTATTAATAAACTGGTAAACATGAGTAAAGTGTCTTTCTGAGTTCTGTGAGCCACTCT  
AGCAAACTTAATTAAGCAACCAAGAAAGGTATCAAAGGATCCCTTGATTTATAGCCATACAGCCAGAAGTGA  
CCAGCGGGGCGCAGTGGCTCACGCTGTAATCCAGCACTGTGGGAGGCGGAGGCGGGCAGATGACCTGA  
AGTCAGGCGTTCGAGACCACCTGGGCAACATGGTGAACCCCTCCTCTACTAAAAATACAAAGAAATTAG  
CCGGGTGTGGTGGCAGATGCGTGAATCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCTC  
AGGAAGCCGAGTTTTCAGTGAGCCGAGATCATGCTATTGTACTCCAGCCTAGGCGACAGAGCAAGACTCT  
GTCTCAAAAAAAGGAGAAGTATAGGTAGCAACCTACTACTGATGATTGGCATCTGAAGTAGAGG  
TCTCTGTGGGATGGATTGAGCCCCAGCCTGTGTGATCTGATGCTGTCTCCGGGTGGATAGTGTGAGA  
AATGAATTTGGTGTCTGCTGGAGAATGCCTGATGTGTGGGAACCCCATACCAACATGGTGTGAGAAG  
TGCTTTGTGATGGTGTGTAAAGGGTAGAGAGAAAAAACAAGTTGCTTTTCTCAGAGCACTCTAGC  
CATAAACTACTATATTCTTTGACCCAGTGATTCTACTTCTCACTATCTTTCTCAATGAATTAGTCACAG  
ATGAAAATATAGATTCTGGCATAAAGAAATATCACTGCAGTGTTGTTATGAAAATTAAAAAAAGTAATTT  
AAAGATTCTCTTATAGGGGCTTGGTTTAAACATATGGCATATCTTCATGGTAGAATATTATACAGCTA  
GTTACATTTTATTTTATTTTATTTTGGATGGACGTTTTCAGGCTGGAGTGCAATGGCATGATCTCAACTC  
ACTGCAACCTCTACCTCTTGGGTTCAAGTGATTCTCTTCCCTCAGCCTCCTGAGTAGCTGGGATTATAGG  
CGTGCGCCACCATGCCCAGCTAATTTTTGTATTTTTAGTAGAGACGGGGTTTACCATGTTGACCAAGC  
CAGTCTCGAATCTCCTGACCTCAGGTGATCCATCCACCTTGGCCTCCCAAAGTGCTGGGATTACAGGCGTG  
AGCCACCATGCCCGCCAGCTAGTTTACATTTTAAAGAACATTTAATGGCATAGGAAGACAAACATGA  
TTTGCTGGTAAATTACTCAGCAGAATACAAAACAGTACAAGTATTTTGATCTCTATTTATTTAAAAACAA  
AATCATAGTAAAAAAGGAGAAAAAATGATTGGCAGTGTTATTTGCTGAGTGGTGACATTAAAGTAGATT  
TTATATTAATTTTTGTAATTTTCAATTTTCTGAATTTCTTTTTTTTGGAGACAGAGTCTCACTCTGTCA  
CCCAGCTGGAGTGAGTGGCAGTGATCTCGGCTCACTGCAAGCTCTGCTCTTGGGTTACAGCCATTCTC  
CTGCCTCAGCCTCCCGAGTAGCTGGGACTACAAGCTCCTGCCACCACACCCGGCTGATTTTTTGTATTTT  
TAGTAGAGACGGGGTTTACCACGTTAGCCAGGATGGTCTTGATCTCTGACCTCGTGATCTGCCCGCTC  
CAGCCTCCCAAGTGTGGGATTACAGGAGTGAGCCACCGCGCTCGGCCTGAATTTCTTATAATGAATAT  
GCATTCTAACTAGAAAAAGGCAAAAAACAAACAAACAAAAAACCACAAATGATAAAAAAGGAA  
ATTGGAAGGACATTACCCTCATTAATACCAGGATGGAAAATGTGTGCTTAATTATAGTTACTAATCTGT  
TCCATCCCTTTTATACCTATCAGTGTGTCTCACCTCAATTTATTTGATCATTTGCCATTATCTATA  
CTTTTAGATTTTCTAAATTTTGGCCATAATTTGCAAGCACATGCTTAATAGTTTTTCTATAAATCTTA  
CTTGTTGCATCTGTTCTTATAGAAATTAATTTCTTGAATGCTGGAACAGTTTCCACAGCCCTGAGCTT  
TCAGGAACATTTGATCTCTGATGCGCTGAAGAAGTAGAGTCAGTAACAGCTGTTGCTTCTCCACGT  
TCTCTCCATATTGGCATAAACAGTCTAGCAGCTCAGAGAGTTCTCTGTGGTGGCTGCCTCTTTGTTTT  
GGAAATTTAGGGAGTTCTTCTGAAGATTATCTAAATAATTGCCCTCTCGTTCAATCTAATTCAAAAA  
CAAAAAAGAACTAAAAAAGTAAAAATATACAATTACATTTACAGGACCTGAAGTAGCCATAATTTTGTATG  
CTCTCTCTTCAAAGGGTTCTAGTGCCATATCCTAGTCTGTTTTCTATAGCTGGGAATATTAATCTCTCT  
GCTATCAGAATCCCATAAATGCCAGCTATTGCTCATGTAGATGTGTGACTGAAATGGAGTACTGCTGTGG  
TGGGCTGAAGGAATGCTGTTGAATATCTTCATAAATAATGTATTTCTCCTTCAGATTTTCAGATGGATAA  
AGCAACATTTCTCTGAGATAAGCACATGAGCTCCACCAAACCTGCTTTTCACTAAGTGTAAGAGGTTGGGC  
AACTATTGGATATGGAAAAATTTTCTGCTGGTCTCTTTTCTTCACTTCCAATCCCTGTATGCTAAAAA  
GTAAGGCCAGCAGGTTCTCATTACCTTGACACACAACAAGGTAAAGAGCCAGAATTACCAACCAGTG  
AAGTATTTATCAATAGTGGGTACACAGAAGTACAGAAATACATAACCTATTACATCAGATATCTAGAAG  
TGGGAGTTTCCACAGCCCTGAACCTCACTAAGATGTAGAAAAAAGTCTCAAAGGCCCTGAATCAGGCTCA  
TTCTTACGCTCCCTCGAATCCCTGGCCACCCCTCGGCTGCAGTACTATTATCAAACTCTGCCTC  
AGTGATGGTTAACTCTCTGCTCCACGTTCAAACCTATTGATGATCTGTCAGTCTGACATTACAGGAT  
ATCACTCCAGTCTATGTTTATGATATCATGCTAACTGAAATGGTGGAGCTGAATGTCCAGCTCAGA  
CATGCCAGAGGCTGAGAAAAAAGCCTGTGAAAATTCAGGAGCCCAAGTATCAGGGGCTAGTGGCCTGG  
GGCATGCCAGGACTTCTCTCTAAGATAAAGGTCAAGTTGTTCAATCTTACAACCTTACCACAAAAAAG  
AGACACAGCACTGAACGGACCTTTTGGGGTCTAGGAGGCAGTATATGCTATCTTGGGATTACTGCTCAG  
ATGCAATTTATCAGAATGCTGCCAATGTGAGAGGGGCTGGGGAAAAAGCACCCGAGCAGGGTTGGGCTG

FIGURE 1, sheet 64 of 66

TTGGTATAAGCTGCCCTGCTGTTTGGGGCTGTATGACCCAGTTGGGTACCCAATAACTAGAAATACACGGATG  
CAGATGTAGACTGGCCACTGTCCAAGAGACCTAGGTGTGCGCAATGGGTGCTTCTCATCACCTCAAACCT  
AAATTCAGTTGTAATTAGAACTCCTAGTTCTTTGCCAGACAGCTACACTTACACCAGGAAATGAGATAAGG  
GTTCCATTGTATCATTTTCTGTCCCCCTGCTGGAACTAGCATGCAAATAAAGAAATTTGTACATAGATG  
GGGGAATTTGATCATCTAGGGTTTCCAATGTGCATCAGGGTTGAAAAAAGTGTCTGTATCCAGGATTT  
AATGGGGCACCTCTTGGTGCTTACACACCAGAACTGGCAGATTTGACTTGATAATAACCAGAAATGGGC  
AGCTGTAGACAAGCACAAATCCAGTAAGAGTAAAGAAATAAAGGCTCAGACCTTCCCTGTTTCCGCTCCCC  
TCATCTCCCACTCCTGTTCCCTGGGATCACTTTCCAAAATAAACTACCATTTGCAAGCCTCAGTCCCAAG  
CTCTGGTGTCCACTGTGAAGTTGGTAAGTGATTGAGAAGGGGAATACAAGAGGGAGAACAAATCTCTTTT  
TTTTTTTTTTTTTTTGGAGACGGAGTCTCTCTGTGTCACCCAGGCTGGAGTGCACTGGCATGATCTCGG  
CTCACTGTAACCTCCACGCCCTAGGTTCAAGCAATCCTCTGCCTCAGCCTCCGGAGCAGCGGGGATAC  
AGGCACCTGCCACCATTGCTGGCTATTTTTTTGTAATTTTAGTAGAGACAGGGTTTACCATTCTTGGCC  
AGGCTGATCTTGAACCTCTGACCTCGTGATCCACCTGTCTAGGCCACCCAAAGTGTGGGATTACAGGCG  
TGAGCCACTGCTCCTGGCCACAATTTTTATTAGGACAATAATTTACCCCAAAGCCAGGCAATTTCTTCAA  
CTTGGGAATGAATAACAACTGAATTCACCCACCCAAAGCAATACTACTCAGGAATAAAGAGAAATGAA  
CTACTAATAACAAGCAGCAGCAGCAATTTCAAGTGCATTATGCTTAGTGAAAAAAGTAACTCAAAGGC  
CACAACTGTAAGGAGTCCATGGATATGACATTCTGGAATGGAATACTATGAGAACAGAAACAGATTA  
ATGGTTCAGGGGCTGGAGGTTATGGAAGGCACTGACCACAAAGAGGAACAGGGGAACTTCTAGGGTGA  
CAGAATTGCTTTAAACCTTGATTTTGTGGTGATCATGTGACCGTGTGCACTTGTGAGAACAACATATTT  
TACACTAAAAAGTGTGAAGACAGCCCTAGCATCAGTAAATAAGTTGTCAAAGGCTGTGCTATTCATTT  
TCCACCTAGAATAGGCTTTGCAATACCTTGATGATTTTCTTTAGACATGGGATCCTAATCAAATTTGGTTA  
TAAACCTTTTCAAGTTTCAAGGTTCAATTTGTAAGTCCGGTCTAGAGAGGGAGAGGACCCATAGTTGCATCA  
TAAGCAAATCCAATGAAGGAGACCAAAAAACCCAGAACAGCAGAAAAGAGACCAACAAAGAAATGACT  
GTTGGTGCAAGTGGAGAGAGCCCGGCTCACAATCTCCTTTGACAATGTGACGTTCTTCTAGCAC  
ATTATGATCATTTGAAGCATAAAATGATGATTCTGAATAACACAAGTGAATAGTTATAGTAAAGAGATTCT  
GTTTAAAGAAAACAGGGAGGTAATTTTGGGGGACACAAGTTCTATCAAATTTAAATTTAGTTTTTAA  
TTTGTAACTTACAAACAGGCATTTAATTTTTTAAAAAGTCTGCTAATATAAACTTTATTTTATAAACAC  
TGGATTATTTATGTTACTATAGTATGACAGGTTTAAAGCAGAAATTCATTTGTGATATATAAAGCACC  
TCATGCTAACAGAGCTTACATGTATGGGCTGTTAGATGATATACTTTTTTATGATGATAAAGCTAC  
ACTAAATCTTTATATCAATTTGATGTATGTAATATCATGTAAGTTGACAGATTAATGACTAAGCACCAG  
CGTCTAAGTTTGAATCCTCTTCTACCCCTTGTGAATTTGAGCAAGTTACTCAGTCTCACTGTGTCTCACT  
TTCTCATCTACAAAGTAAGGATAATAAAAAATATCCTCACAGAATCTTGAATAGTGCTCTCACTATCC  
TGTCACACAATAATGTCTCAATTTAGTAGTTGTTTTTATTATTGTTATTACAGGGAAGCATTTTTTTTTT  
GCTTGTGCTACTCTTTGAAAAATATTTTGTGTAGCAGATTTTGTCAAATGCTTATGTGAATAATTAGAAAG  
TTCTATATGAATGGAGTCTGAATTAATAACACATAATTGTAATGGGTATATAGCAATAATGTGATAAAA  
TAAAGAGGACAAAATCTTAGAATTTAGCCAGACCTGAATTTGAATAAGAGATGTCCTTCAACAAATATTT  
ACTAAGTGCCCACTAAGCGCAGGGCCCTAGCCAGGTTCCAAGGTTACAGCAGTGAGCAGGACAGCCCCAG  
CCCCAGCCTACAGGGGTTTACAGCTTAATCAATCTCTACCTGGGGACCTTGTGCCACTACTCAATCTATC  
AGTGCTTCAGTTTCCCCATCGATAAAATGGTGATAAAATTTACTTCCCAGGGACAATGCAAAGATTCACT  
GAGAACAGGCTGTGACAGTGCCTTCTCAGCAGCAGCATAGTAATCAATAAATGGTACCCTATGGACAGGCA  
AGCACTGGTGCCAGCAGCCCCAACCAAAAGTGAATTTACAAAGTTTATTTTAACTTTCAAGAGACTAT  
TCACTAGTCAGGCCTCACCAGGACCACTGACATAAAATTCATTTTAAAGGATAATAGTTATAAGCAAGAT  
AATACAATAGTGCTAAGCATTTCACTCTAAGATAATTTTACGTTGTGTTTTTGTGTTGTTTGTGTTGAGA  
CAGTGCTCACTCTGTTGCCAGGCTGGAATGCTAGAATAAGTGGCATGATCATGGCTCACTGCACTG  
TGACCTCTCATCAAGAGATCTCCACCTCAGCTCCCAAGAAGCTGGGACTACAGGCATGTGCCACCAT  
GCCAGATTTTTTTTTTATTTTGTAGAGATGGGGTTCACTCCATTGCTGGGCTGTTCTAGAACTCCTG  
GGCTCAAGCGATTCTCTGTCTCAGCTCCCAAGTGTGGGATTACATAGGTGAACCACTGCACCCGGC  
TATCTTTAACTTTCTAAATTAATTTCTTTCTAAATATAGTTCACTAAATCTGAACCAAGGTTAA  
TTAATCTTTGTGATTGATATATATCATGCAGGTTTTTGGAGCTATTTTCAAAAAGAATCATAACTCAT  
ATATTTTAGGTCACATTTAAACAATTACAGTTAATTTCCATAGTTGAAAATTATAGATAATTTCAAAT  
TATTTGGTGATTACACATATTACCTAATTTCTAAACCTTTAGTATAATGTAGAGACAGTTATTTCTGAGAG  
GGGTTATTTTCAAAATAAGATTTGTAACCACTAAACCAGCTAGTAGTCACTTATTAATAAGAAATATCTG  
CTATCAATAAAGGCACTACTATAAAATAATCTGAATAAGTTCTTGCAGGTTATCTTAATAAGGCTGACA  
TCTATAAACATTTATGTATCATGTATAAGTGATGTGCACAAATGGTATAGGCTAAGGACTCGTTTTATAG  
AAAAACAAGGTGAAAGTAATAAAACAATTTAAATAACATGTTAGAACTACATGGTTTGTGAAATGAA  
GCACTCACTTCTTCACTGACAAATTTCCATTCTGCTTCAAGTTCTTGCACCACTATCTCCACTCTTTAG  
CAGCTTCCAGCAAACTCAGCCATTTCTCCACAGAGCCGACACAATCTTGAGCAACATATGCCATCATT  
TTCTGTGCACTGAGTCTCAAGAGTCTAAGGATCTGTCTAGTTTCATTAACCTTCTTTGGTTGATATA  
AGATTTGACACCAAGGCCTTAAGAAAGAAAAGAAAAAATAAGAGGGACATACTATTACGGTTTTCTCTG  
AACTTTACTACTCTTTTAAATCTGAACTAATTAATTTTCAATCTTCCATAAGTATTGCATGATCCAC  
CTCTTATCTTTTGAAGTCAATTTAGACCAGATGAGAATTATCTATGTATTATTGTATTCTGCATGAAT  
TTGGGATTACAGGGACAAATAATGACCCATAAACCATTTTTTCCAAGAAAGAACATACTTTCAAAGCA  
AATATTTGCCAGACGAGTGGCTCATGCTGTGATCCAGCACTTTGGGAGGGCAAGGTGGGTGGATCAT  
GAGTCAAGGAGTCTGAGACCACTCTGGCCACATGTTGAAACCTATCTTATTAATAACACAAAATTTA  
GCTGGGCATGGTGGCATGCGCTGTAGTCCCAGCTACTCAGGAGGCTGAAGCAGGAGAAATGACTGAACC  
TGGGAGGCACAGGTTGCAAGGTTGCACTGAGCTGAAATTTGTGCCACTCACTGCACTCCAGCCTGGGCAAC  
AGAGTGAGACTCCGTATAAAAAAAGAGTCTATAAGTGGCTGGGCACAGTGGCTCATGCAGCA  
CTTTGGGAGTGGGAGGAGGATTTGAGGCTAGGATTTCAAGACATAGCAAGGCAACATAGCAAG  
ACCTGTCTCTACAAAAAATTAATAAATTAACCAGGCATGGTGGTGTATGCCTGTAGCCCCAGCTACTCA  
GCGGGCTGGGATGGGAGGATCCCTTGAAGCCAGGAGCTCAAGGCTGTGATAAGCCATGATTGCACCATTA  
TACTCCAGCCTGGGTGACAGAAAGACCCTGCTTATTTAAAAAAGAAAAAAGAAAAAATCTAA

FIGURE 1, sheet 65 of 66

AAGTACAACAGCCCTCATTATCTGGGTTTCTCCTTTCAAGGTTTCAGTTACTTGTGATTAAACACGGTCC  
AAAAATACTAAAAAATTCAGAGGAAAAATGTGAAGATTATTTGTATAAAATGTATGTTTTATTTG  
TATATAAATATATAAGTGCTATTCTGACTAGTGTGATGAAATCTCAAGCCATCTCTCCATCCCACCTG  
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CTTCTTGGTGATCAGATCAACTGTTGTGGTATCAAATGCTTGTGCTCCAGATGAATAGTAGCCCAACGCT  
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TTCATTTTCATCAACCAGGCATTGTATAGTCTCATGTGCATTACAAGAAGGGTGAACAGTACAATGACAT  
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TTGTTGACCTCTGACTGCACCTTAATTTATAAATTAACCTTTATCATAGGCGTGTACAGGAAAAAATTA  
TATACATAGAGTTCAGTGTTATTCACAGTCTCAAGCATCCACTGGGTGTCTTGGAACATATCCCTGTGG  
ATAAAGGGGGACTACTGTACATTTTGTATTTTAAAGTCTCACATTTTACTAAGTAGTTCCTTTGCACAA  
TACTTCCGTATATCAACCACCAACACAATATTGAAAGGTTTTCTTGGTTCGCTTTTGTTTTGGGGAATG  
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CGGGAGGTAGAAGTGCAGTGAGCCAAGACTGCATGACTGCACTCCAGCCTGGGCAAGACTGTGTCTCAA  
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GAAAAGAAGTGTATAAAATTTTAAATTAAGCTGGATATTTGATATTTTATATATAGCATATATATTTT  
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GTGCTTAATAGAAAACCTCCCTCTGCAAGAATATTGTAACATATAACTATAAAGGACCACTCTCTAAA  
ATATAGAATTC

Exon	Reference Position	SNP	AA change	Frequency in Liverpool – Blood	Frequency in Liverpool - Tumor	number of individuals with change in heterozygosity <sup>1</sup>	number of individuals with a loss of heterozygosity <sup>2</sup>	In which populations observed populations <sup>3</sup>
Exon -7	49671	A to G ATTCTTATATTCT	None	0/92 0%	0/96 0%	0	0	3 (C, S)
Intron -7	49904	C to A GTCCACACATATGG	None	0/92 0%	0/96 0%	0	0	3 (C, S)
Intron -7 *	49934	A to G ATGTACATACCAT	None	0/92 0%	0/94 0%	0	0	3 (C)
Intron -7	49994	A to T CCCTTGAGTTACT	None	90/92 98%	94/96 98%	0	0	2
Exon -5	83980	G to A CTGGAGGTTGAAG	None	0/42 0%	0/52 0%	0	0	3 (S)
Intron -5	85938	G to A CTCTCCGTAGAAA	None	26/88 30%	27/94 29%	4	1	2, 3 (N, C, I, A)
Exon -2	89837	C to T TTCCTACGGAAAA	None	16/96 17%	13/88 15%	7	1	2, 3 (C, I, A, S)
Exon -2 *	89889	T to C CATTGTGTTGAACG	None	1/94 1%	0/92 0%	1	0	2
Intron -2 *	90090	T to C CTTTGCTAGACAG	None	1/94 1%	0/94 0%	1	0	2
Intron 3	126711	A to G AAGTCAAGCTGCT	None	0/96 0%	2/96 2%	2	0	2
Exon 5	130189	G to A CCAAAGTGGGGCTC	Val to Glu	2/96 2%	1/96 1%	1	0	1,2,3 (C), 4(As), public variation
Intron 7	154138	G to A AGAGCCCGGGGAA G	None	3/93 3%	3/96 3%	2	0	2
Intron 7	154202	A to G GTCCCCATAGTAA	None	3/96 3%	2/96 2%	1	0	2, 3 (C, A, S), 4 (As)
Exon 8	154431	G to A GTCACAGGCTGAA	3' UTR	32/96 33%	35/96 36%	2	2	1, 2, 3 (N, I, A), 4 (all)
Exon 9	160052	A to G ACTTCAATTTTCCC	3' UTR	38/96 40%	35/96 36%	4	1	1, 2, 3 (N, I, A, S), 4 (all)
Exon 9	160089	A to G AAAAATAATTTTA	3' UTR	14/96 15%	16/96 17%	4	3	1, 2, 3 (N, I, A, S)
Exon 9	160165	A to G CAATCCCAACAAATT	3' UTR	9/96 9%	8/96 8%	1	0	1, 2, 3 (A), 4 (all)

FIGURE 2(a), sheet 1 of 2



Exon	Reference Position	SNP	AA change	Frequency in Liverpool -- Blood	Frequency in Liverpool - Tumor	number of individuals with change in heterozygosity <sup>1</sup>	number of individuals with a loss of heterozygosity <sup>2</sup>	In which populations observed populations <sup>3</sup>
Exon 9	160376	C to G GCTGTGCCCTGCCA	3' UTR	10/96 10%	9/96 9%	1	0	1, 2, 3 (N,C,A)
Exon 9	160602	G to C AGATCAGTTGAGG	3' UTR	1/96 1%	1/96 1%	0	0	2
Exon 10 *	303073	T to C CTATAGTAATAGG	3' UTR	0/74 0%	0/94 0%	0	0	3(A)
Exon 10	302972	G to T CTGGATGAATCTC	3' UTR	6/76 8%	6/92 7%	1	0	2,3(N,I,A,S)
Exon 10	302848	A to G AACTGGAAGCAAC	3' UTR	5/72 7%	7/78 9%	1	0	2, 3(N)
Exon 10	302689	T to C CTTGACTGCATTC	3' UTR	9/86 10%	11/94 12%	3	0	2,3(all)
Exon 10	302671	C to T TGCAGCCTTTGTC	3' UTR	0/86 0%	0/94 0%	0	0	3(A)
Exon 10	302556	A to G GCCCACATGTCTG	Met to Val	14/84 17%	14/94 15%	3	0	2,3(all)

\* SNP's observed in 48 breast cancer patients. Genomic DNA was isolated from blood (B; 96 chromosomes) and matched tumor tissue (T; 96 chromosomes).

- For some heterozygosity calculations, individuals 47 and 48 were excluded because it is believed that the blood or the tumor sample was switched. These excluded cases were when both individuals showed a change in heterozygosity.
- Loss of heterozygosity calculation includes any case where a heterozygous blood genotype became a homozygous genotype of the minor allele in the same individual's tumor sample. A change from a homozygous genotype of the major allele in the blood sample into a homozygous genotype of the minor allele in the tumor sample would also be counted
- Populations analyzed:
  - cDNA (prostate, Clontech)
  - Liverpool clinical
  - 3- Coriell (N, North Europ.; C, Chinese; I, Indo-Pak; A, Afric-Amer; S, SW Native Amer)
  - 4- CEPH family (Ca, Caucasian, Af, Afric-Amer, As, Asian)

FIGURE 2(a), sheet 2 of 2

Exon	Contig64 Position	SNP	Coriell Frequency/20 chromosomes						Frequency in Liverpool	
			N. Eur	Chi	In-Pk	Af-Am	SW-NA	Blood	Tumor	
Intron 3	126711	AAG	0	0	0	0	0	0	2.1%	
5	130189	TAC	0	16.6%	0	0	0	2.3%	1.1%	
Intron 7	154202	CGT	0	27.4%	0	7.2%	12.3%	3.5%	2.2%	
8	154431	AAG	26.4%	0	28.2%	47.6%	0	31.9%	36.5%	
9	160052	AGT	27.6%	0	45.4%	23.25%	35.6%	39.6%	36.5%	
9	160089	TGA	13.2%	0	14%	14.4%	28.4%	14.6%	16.7%	
9	160165	CGA	0	0	0	10.4%	0	9.4%	8.3%	
9	160376	GGC	10%	16.7%	0	27.8	0	10.4%	9.4%	

FIGURE 2(b)

Exon	Reference Number	SNP	Coriell Frequency					Frequency in Liverpool		
			N. Eur	Chi	In-Pak	Af. Amer	SW NA	Blood	Tumor	
Exon -7	49671	TAT	0/18 0%	1/20 5%	0/20 0%	0/20 0%	3/20 15%	0/92 0%	0/96 0%	
Intron -6	49904	ACA	0/18 0%	1/20 5%	0/20 0%	0/20 0%	3/20 15%	0/92 0%	0/96 0%	
Intron -6	49934	CAT	0/18 0%	1/20 5%	0/20 0%	0/20 0%	0/20 0%	0/92 0%	0/94 0%	
Intron -6	49994	GAG	18/18 100%	20/20 100%	20/20 100%	20/20 100%	20/20 100%	90/92 98%	94/96 98%	
Exon -5	83980	GGT	0/20 0%	0/20 0%	0/20 0%	0/20 0%	5/20 25%	0/42 0%	0/52 0%	
Intron -4	85938	CGT	6/20 30%	3/20 15%	5/20 25%	9/20 45%	0/20 0%	26/88 30%	27/94 29%	
Exon -2	89837	ACG	0/20 0%	1/20 5%	1/20 5%	2/20 10%	3/20 15%	16/96 17%	13/88 15%	
Exon -2	89889	GTT	0/20 0%	0/20 0%	0/20 0%	0/20 0%	0/20 0%	1/94 1%	0/92 0%	
Intron -1	90090	CTA	0/20 0%	0/20 0%	0/20 0%	0/20 0%	0/20 0%	1/94 1%	0/94 0%	
Exon 9	160165	CAA	0/18 0%	0/11 0%	0/18 0%	1/14 7%	0/12 0%	9/96 9%	8/96 8%	
Exon 9	160376	GCC	2/18 11%	2/12 17%	0/18 0%	5/18 28%	0/16 0%	10/96 10%	9/96 9%	
Exon 9	160602	AGT	0/18 0%	0/20 0%	0/20 0%	0/20 0%	0/14 0%	1/96 1%	1/96 1%	
Exon 10	303073	GTA	0/18 0%	0/18 0%	0/20 0%	1/20 5%	0/18 0%	0/74 0%	0/94 0%	
Exon 10	302972	TGA	1/18 6%	0/18 0%	2/20 10%	1/20 5%	3/20 15%	6/76 8%	6/92 7%	
Exon 10	302848	GAA	2/18 11%	0/20 0%	0/20 0%	0/20 0%	0/20 0%	5/72 7%	7/78 9%	
Exon 10	302689	CTG	3/18 17%	3/20 15%	3/20 15%	9/20 45%	3/20 15%	9/86 10%	11/94 12%	
Exon 10	302671	CCT	0/18 0%	0/20 0%	0/20 0%	3/20 15%	0/20 0%	0/86 0%	0/94 0%	
Exon 10	302556	CAT	3/18 17%	5/20 25%	4/20 20%	8/20 40%	3/20 15%	14/84 17%	14/94 15%	

FIGURE 2(c)

Contig64 position	Exon	SNP	Caucasian	Af-Am	Asian
130189	5	G to A CCAAGTGGGCTC	0	0	37.5%
152603 (only seen in CEPH)	Intron 7	T to C ATGGATTATGTG	0	37.5%	0
154202	Intron 7	A to G GTCCCCATAGTAA	0	0	37.5%
154431	8	G to A GTCACAGGCTGAA	12.5%	12.5%	12.5%
160052	9	A to G ACTTCAATTTC	37.5%	12.5%	37.5%
160165	9	A to G CAATCCAACAATT	25.0%	25.0%	12.5%

FIGURE 2(d)

Exon -7 Forward	ER2-1F	M13f TGTA AACGACGGCCAGT	CACGCGGGCTTCATAAGCTAGAT
Exon -7 Reverse	ER2-2R	M13r CAGGA AACAGCTATGACC	GGTTGCACCACTCTGTAAATATGCTAAA
Exon -5 Forward	ER2-3F	M13f TGTA AACGACGGCCAGT	GGCACATAGTAAGCAAAATCATAAATGCTGA
Exon -5 Reverse	ER2-3R	M13r CAGGA AACAGCTATGACC	AACCCAGGGCACTGATAGAAGTGAA
Exon -4 Forward	ER2-4F	M13f TGTA AACGACGGCCAGT	GTCGAAGGGCACACAACACTAGGAAG
Exon -4 Reverse	ER2-4R	M13r CAGGA AACAGCTATGACC	GACAAATTAATGGTGGCAATCAGGA
Exon -2 Forward	ER2-6F	M13f TGTA AACGACGGCCAGT	CTTCCTCATCTTCTCACCCCCACC
Exon -2 Reverse	ER2-6R	M13r CAGGA AACAGCTATGACC	TTCCCTCCTTTCCCTCCACCTTTTCC
Exon4 Forward	ESR2ix4f35755	M13f TGTA AACGACGGCCAGT	CTGGAAAATGGAGACCTAAAAAGTTTCTGAA
Exon4 Reverse	ESR2ix4r36210	M13r CAGGA AACAGCTATGACC	GATCATGTGTACCAACTCCTTGTGCG
Exon5 Forward	ESR2ix5f39066	M13f TGTA AACGACGGCCAGT	GGTCGTAGTGTCTTGACAAACTCTAAATGAA
Exon5 Reverse	ESR2ix5r39580	M13r CAGGA AACAGCTATGACC	ATGATGCTATCATCCTCTGCCCTG
Exon8 Forward	ESR2ix8f63153	M13f TGTA AACGACGGCCAGT	GTGGGACACAGAGGCTGACAAAGAC
Exon8 Reverse	ESR2ix8r63651	M13r CAGGA AACAGCTATGACC	GGGACCACACAGCAGAAAAGATGAA
Exon 9 Forward	2ix9f69194		TAACATTTTCACTTCAGTTTCCCTCTGG
Exon Reverse	2ix9r69643		GTCCAGTAGCATTTTACTTTCTACCTAAACAAAG
Exon 9 Forward	2ix9f69494		GAGAAGGGGAGGAGGGGACTGGGATTG
Exon 9 Reverse	2ix9r70066		TGTAGGGAATGGCAAAGGCAGCATGGC
Exon 10 Forward	ER2_10f_146946		GACAGCTCTCTCTCACTCTCTTGGAGAT
Exon 10 Reverse	ER2_10r_147971		CTTCTGCCTCAGCTTCCCCAGTA

FIGURE 2(e)

Exon 10	ER2_10sf1	AGCTCTCTCTCACTCTCTTG
Exon 10	ER2_10sf2	CAAACTACTCATTTCCAAAC
Exon 10	ER2_10sf3	TACACAACTGCACCTTTTATC
Exon 10	ER2_10r_147971	GACAGCTCTCTCTCACTCTCTTGGAGAT
Exon 10	ER2_10sr1	GTAGCAGTTAGGTAAGTTTTTGA

FIGURE 2(f)

cdNA Sequence for the Estrogen Receptor Beta (GenBank ACCESSION  
AF051427.1 GI:2970563) (SEQ ID NO:2)

```

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aagcgcggag gctgcgagaa ataactgcct cttgaaactt gcagggcgaa gagcaggcgg 121
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agagggtccc cagaaccac agtctcagtg a

```

FIGURE 3



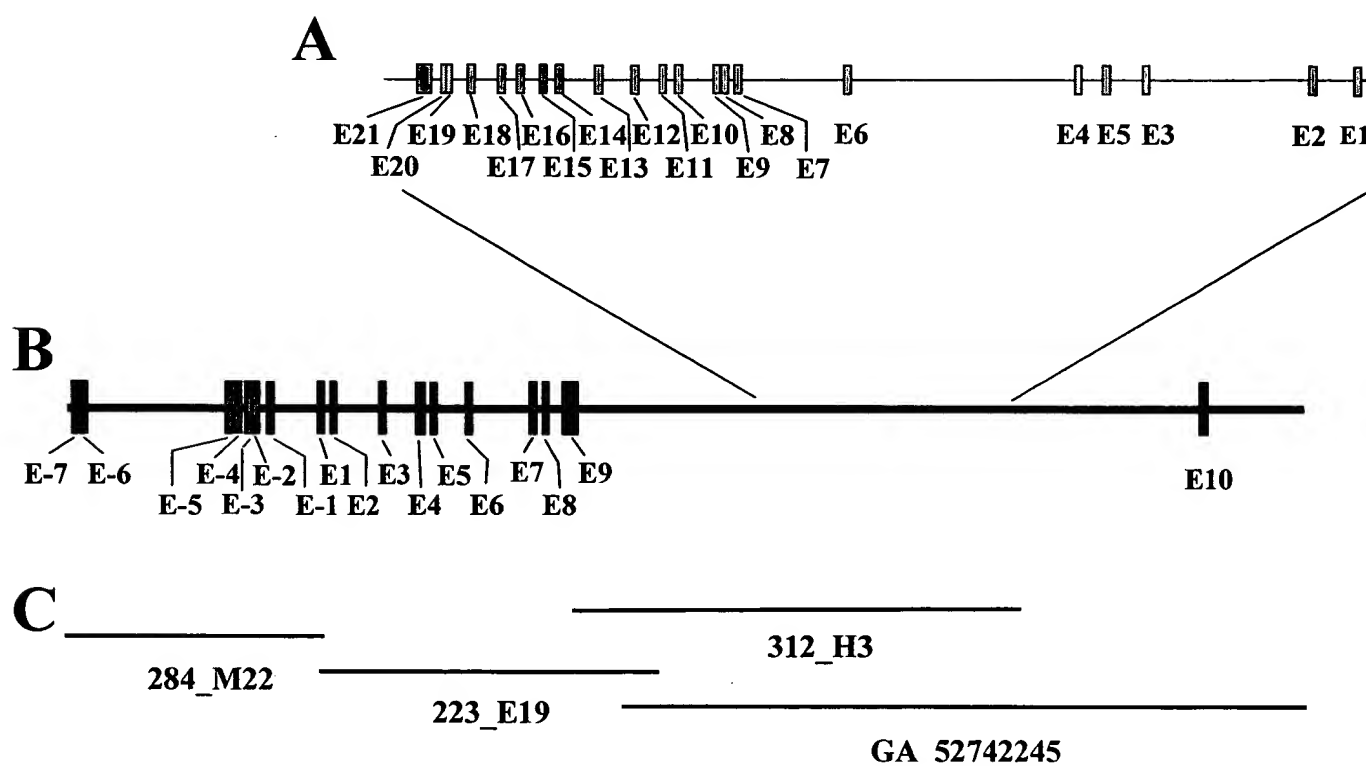
Amino Acid Sequence for the Estrogen Receptor Beta (GenBank ACCESSION  
AAC05985) (SEQ ID NO:3)

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121 retlkrkvsg nrcaspvtgp gskrdahfca vcsdyasgyh ygvwscegck affkrsiqgh
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361 vldrdegkcv egileifdml lattsrfrcl klqhkeylcv kamillnssm yplvtatqda
421 dssrklahl1 navtdalvwv iaksgissqq qsmrlanllm llshvrhasn kgmehl1nmk
481 cknvvpvydl llemlnahvl rgckssitgs ecspaedsks kegsqnpqsq
```

FIGURE 4

# Estrogen Receptor Beta

0.0 Kb      50.0 Kb      100.0 Kb      150.0 Kb      200.0 Kb      250.0 Kb



(A) Complete structure of the human synaptic nuclei expressed gene 2 (syne-2) contained within intron 9 of ERβ. Exons are represented by filled boxes and introns by horizontal lines. Note that the gene is on the opposite strand as ERβ. (B) Complete structure of the human estrogen receptor beta (ERβ). Exons are represented by filled boxes and introns by horizontal lines. (C) Order and names of contigs used to complete the genomic sequence. GA numbers represent Celera contig numbers. Research genetics BAC clones are represented by standard plate and well numbering.

FIGURE 5

Figure 6, sheet 1 of 2

ESR2 Genomic Structure

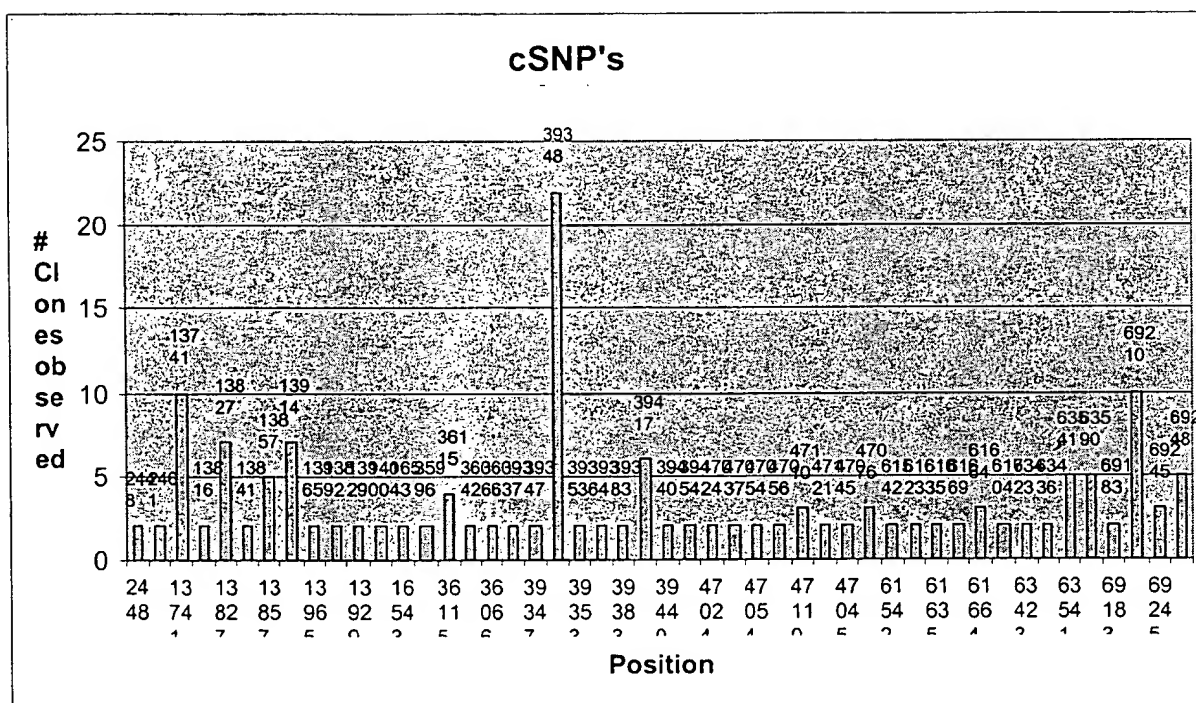
Splice Variant		AF051428		AF051427		AF060555		AB006589		AB006590		HSRNERB	
length (bp)		2041		2011		2745		3593		1740		1560	
CDS		419-1906		419-2011		471-2012		1276-2763		99-1691		19-1452	
Exon(s)?	BAC	CDNA		CDNA		CDNA		CDNA		CDNA		CDNA	
	start end	start end	start end	start end	start end	start end	start end	start end	start end	start end	start end	start end	start end
x-1	2320 2847	1 328	1 328	1 328	1 380			1 1185					
x1	13605 14056	329 780	329 780	329 780	381 832			1186 1637		9 460	13838 14056	3 221	
x2	16527 16699	781 953	781 953	781 953	833 1005			1638 1810		461 633		222 394	
x3	27769 27885	954 1070	954 1070	954 1070	1006 1122			1811 1927		634 750		395 511	
x4	35933 36232	1071 1370	1071 1370	1071 1370	1123 1422			1928 2227		751 1050		512 811	
x5	39317 39455	1371 1509	1371 1509	1371 1509	1423 1561			2228 2366		1051 1189		812 950	
x6	47012 47145	1510 1643	1510 1643	1510 1643	1562 1695			2367 2500		1190 1323		951 1084	
x7	61538 61718	1644 1824	1644 1824	1644 1824	1696 1876			2501 2681		1324 1504		1085 1265	
x8	63365 63551			1825 2011					63365 63600	1505 1740	63365 63659	1266 1560	
x9	69074 69274	1825 2026						2682 3593					
Exon(s)?	?				1877-2745			69074 69986					

Figure 6, sheet 2 of 2

ESR2 Genomic Structure

Splice Variant	AF074598		AF 074599		AF061054		AF 061055
length (bp)	306		1215		659		372
CDS	1-255		1-1148		1-222		1-372
BAC	cDNA	BAC	cDNA	BAC	cDNA	BAC	cDNA
start	end	start	end	start	end	start	end
Exon(s)?							
x-1							
x1		13867	1	190			
x2			191	363			
x3			364	480			
x4	36154		481	780			
x5							
x6							
x7	61625		781	961	2	182	61828
x8			962	1215			2
x9							
Exon(s)?							
					68759	69235	183
					659	69103	69182
							293
							372

Figure 7



		exon -7 49904		exon -7 49934		exon -7 49994		exon -7 49671		exon -7 83980		exon -5 85938		exon -4 89837		exon -2 89889	
		T	C	C	A	G	A	A	T	G	A	A	G	G	A	A	G
total	total	0.96	0.041	0.96	0.04	0.99	0.01	1	0	0.95	0.05	0.77	0.23	0.93	0.07	1	0
N.Eur	N. Eur	1	0	1	0	1	0	1	0	1	0	0.7	0.3	1	0	1	0
a01	GM03715	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	0	2	2	0	2	0
a02	GM06816	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
a03	GM10923	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
a04	GM10924	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
a05	GM11814	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
a06	GM12136	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
a07	GM12137	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
a08	GM12547	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
a09	GM12548	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
a10	GM14667	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
Chi	Chi	0.95	0.05	0.95	0.05	0.95	0.05	1	0	1	0	0.85	0.15	0.95	0.05	1	0
b01	GM00576	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b02	GM03433	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
b03	GM06090	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b04	GM07426	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b05	GM09820	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0
b06	GM11321	1	1	1	1	2	0	2	0	2	0	1	1	2	0	2	0
b07	GM11322	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b08	GM11323	2	0	2	0	1	1	2	0	2	0	2	0	2	0	2	0
b09	GM11324	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b10	GM11325	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
In Pak	In. Pak	1	0	1	0	1	0	1	0	1	0	0.75	0.25	0.95	0.05	1	0
c01	GM01032	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c02	GM01225	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
c03	GM04300	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0
c04	GM07895	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c05	GM10176	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
c06	GM10666	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c07	GM10667	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
c08	GM11213	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0
c09	GM11860	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c10	GM14611	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
Af. Amer	Af. Amer	1	0	1	0	1	0	1	0	1	0	0.55	0.45	0.9	0.1	1	0
d01	GM14660	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0
d02	GM14661	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0
d03	GM14663	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
d04	GM14665	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
d05	GM14672	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
d06	GM14682	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0
d07	GM14683	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
d08	GM14696	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
d09	GM14698	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
d10	GM14700	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
Nat. Amer	SW Amer. Ind	0.85	0.15	0.85	0.15	1	0	1	0	0.75	0.25	1	0	0.85	0.15	1	0
e01	GM12060	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
e02	GM12061	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
e03	GM12062	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e04	GM12063	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0
e05	GM12064	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0
e06	GM14308	1	1	1	1	2	0	2	0	1	1	2	0	2	0	2	0
e07	GM14309	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e08	GM12310	1	1	1	1	2	0	2	0	2	0	2	0	2	0	2	0
e09	GM14311	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0
e10	GM14313	1	1	1	1	2	0	2	0	1	1	2	0	2	0	2	0

FIGURE 8a, sheet 1 of 2

	exon -2 90090		exon 9 160165		exon 9 160376		exon 9 160602		exon 10 303073		exon 10 302972		exon 10 302848		exon 10 302699		exon 10 302681		exon 10 302556	
	A	G	A	G	C	G	G	C	T	C	G	T	A	G	T	C	C	T	A	G
total	1	0	0.99	0.01	0.89	0.11	1	0	0.99	0.01	0.93	0.07	0.98	0.02	0.79	0.21	0.97	0.03	0.77	0.23
N.Eur	1	0	1	0	0.89	0.11	1	0	1.00	0.00	0.94	0.06	0.89	0.11	0.83	0.17	1.00	0.00	0.83	0.17
a01	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0	2	0
a02	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
a03	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
a04	2	0	1	n/a	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1
a05	2	0	2	0	2	0	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
a06	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
a07	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0
a08	2	0	1	n/a	1	1	2	0	2	0	2	0	2	0	1	1	2	0	1	1
a09	2	0	2	0	1	1	2	0	2	0	1	1	2	0	1	1	2	0	1	1
a10	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
Chi	1	0	1	0	0.83	0.17	1	0	1	0	1.00	0.00	1.00	0.00	0.85	0.15	1.00	0.00	0.75	0.25
b01	2	0	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b02	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1
b03	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b04	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b05	2	0	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0	2	0
b06	2	0	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0	1	1	2	0	1	1
b07	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1
b08	2	0	n/a	n/a	n/a	n/a	2	0	n/a	n/a	n/a	n/a	2	0	1	1	2	0	1	1
b09	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1
b10	2	0	1	n/a	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2	0
In Pak	1	0	1	0	1	0	1	0	1	0	0.90	0.10	1.00	0.00	0.85	0.15	1.00	0.00	0.80	0.20
c01	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c02	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c03	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1
c04	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c05	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c06	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c07	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1
c08	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
c09	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0	1	1
c10	2	0	n/a	n/a	n/a	n/a	2	0	2	0	1	1	2	0	1	1	2	0	1	1
Af. Amer	1	0	0.93	0.07	0.72	0.28	1	0	0.95	0.05	0.95	0.05	1	0	0.55	0.45	0.85	0.15	0.6	0.4
d01	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
d02	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1	1	1	1	1
d03	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1
d04	2	0	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
d05	2	0	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1
d06	2	0	2	0	1	1	2	0	2	0	1	1	2	0	1	1	2	0	1	1
d07	2	0	1	n/a	1	1	2	0	2	0	2	0	2	0	2	0	2	0	2	0
d08	2	0	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0	1	1	2	0	1	1
d09	2	0	1	n/a	1	1	2	0	1	1	2	0	2	0	0	2	1	1	1	1
d10	2	0	1	1	0	2	2	0	2	0	2	0	2	0	0	2	1	1	0	2
Nat. Amer	1	0	1	0	1	0	1	0	1	0	0.85	0.15	1	0	0.85	0.15	1	0	0.85	0.15
e01	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	1	1	2	0	1	1
e02	2	0	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e03	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e04	2	0	n/a	n/a	2	0	2	0	2	0	1	1	2	0	1	1	2	0	1	1
e05	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0	1	1
e06	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e07	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e08	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
e09	2	0	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0
e10	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0	2	0

FIGURE 8a, sheet 2 of 2



	exon -7 49904		exon -7 49934		exon -7 49994		exon -7 49671		exon -5 83980		exon -4 85938		exon -2 89837		exon -2 89889		exon -2 90090	
	A	G	C	A	A	G	A	T	G	A	G	A	C	T	T	C	T	C
	1.00	0.00	1.00	0.00	1.00	0.00	0.98	0.02	1.00	0.00	0.71	0.29	0.85	0.15	1.00	0.00	1.00	0.00
T1	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T2	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T3	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T4	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T5	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0	2	0	2	0
T6	2	0	2	0	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0
T7	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
T8	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
T9	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T10	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T11	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T12	2	0	2	0	2	0	2	0	n/a	n/a	1	1	1	1	2	0	2	0
T13	2	0	2	0	2	0	2	0	n/a	n/a	1	1	1	1	2	0	2	0
T14	2	0	2	0	2	0	2	0	n/a	n/a	0	2	2	0	2	0	2	0
T15	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T16	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
T17	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T18	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T19	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T20	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	n/a	n/a
T21	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T22	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0	2	0
T23	2	0	2	0	2	0	2	0	2	0	2	0	n/a	n/a	n/a	n/a	2	0
T24	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
T25	2	0	2	0	2	0	2	0	2	0	0	2	n/a	n/a	2	0	2	0
T26	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T27	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T28	2	0	2	0	2	0	2	0	n/a	n/a	0	2	2	0	2	0	2	0
T29	2	0	2	0	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0
T30	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T31	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	n/a	n/a	2	0
T32	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
T33	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T34	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T35	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T36	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
T37	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
T38	2	0	2	0	2	0	2	0	n/a	n/a	0	2	2	0	2	0	2	0
T39	2	0	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0
T40	2	0	2	0	2	0	2	0	n/a	n/a	1	1	1	1	2	0	2	0
T41	2	0	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0
T42	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T43	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
T44	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T45	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T46	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
T47	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
T48	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0

FIGURE 8b, sheet 1 of 6

	intron 3 126711		exon 5 130189		intron 7 154138		intron 7 154202		exon 8 154431		exon 9 160052		exon 9 160089		exon 9 160165		exon 9 160376	
	A	G	G	A	G	A	A	G	G	A	A	G	A	G	A	G	C	G
	0.98	0.02	0.99	0.01	0.97	0.03	0.98	0.02	0.64	0.36	0.64	0.36	0.83	0.17	0.92	0.08	0.91	0.09
T1	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T2	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
T3	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0
T4	2	0	2	0	1	1	2	0	1	1	1	1	2	0	2	0	2	0
T5	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
T6	2	0	2	0	2	0	2	0	1	1	2	0	0	2	2	0	2	0
T7	2	0	2	0	1	1	2	0	1	1	2	0	1	1	2	0	2	0
T8	2	0	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0
T9	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T10	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T11	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
T12	2	0	2	0	2	0	1	1	2	0	1	1	2	0	2	0	2	0
T13	2	0	2	0	2	0	2	0	2	0	2	0	1	1	1	1	1	1
T14	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T15	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T16	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
T17	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T18	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T19	2	0	2	0	1	1	2	0	1	1	1	1	2	0	2	0	2	0
T20	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T21	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T22	2	0	2	0	2	0	2	0	2	0	2	0	2	0	0	2	0	2
T23	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
T24	2	0	2	0	2	0	2	0	2	0	2	0	2	0	0	2	0	2
T25	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T26	1	1	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T27	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T28	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T29	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T30	1	1	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T31	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T32	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
T33	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T34	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T35	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T36	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0	2	0
T37	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
T38	2	0	2	0	2	0	2	0	1	1	2	0	2	0	1	1	1	1
T39	2	0	2	0	2	0	2	0	2	0	2	0	1	1	1	1	1	1
T40	2	0	2	0	2	0	2	0	1	1	2	0	0	2	2	0	2	0
T41	2	0	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0
T42	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T43	2	0	2	0	2	0	2	0	2	0	1	1	0	2	2	0	2	0
T44	2	0	1	1	2	0	1	1	2	0	1	1	2	0	2	0	0	2
T45	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
T46	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T47	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
T48	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0

FIGURE 8b, sheet 2 of 6

	exon 9 160602		exon 10 303073		exon 10 302972		exon 10 302848		exon 10 302699		exon 10 302681		exon 10 302556	
	G	C	T	C	G	T	A	G	T	C	C	T	A	G
	0.99	0.01	1.00	0.00	0.93	0.07	0.91	0.09	0.88	0.12	1.00	0.00	0.85	0.15
T1	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T2	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T3	2	0	2	0	2	0	2	0	1	1	2	0	1	1
T4	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T5	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T6	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T7	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T8	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T9	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T10	2	0	2	0	1	1	2	0	1	1	2	0	1	1
T11	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T12	2	0	2	0	1	1	2	0	1	1	2	0	1	1
T13	1	1	2	0	2	0	2	0	1	1	2	0	1	1
T14	2	0	2	0	1	1	2	0	1	1	2	0	1	1
T15	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T16	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T17	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T18	2	0	2	0	2	0	n/a	n/a	2	0	2	0	1	1
T19	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0
T20	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T21	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0
T22	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0
T23	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T24	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0
T25	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T26	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T27	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T28	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T29	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T30	2	0	2	0	1	1	2	0	1	1	2	0	1	1
T31	2	0	2	0	2	0	2	0	1	1	2	0	1	1
T32	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T33	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T34	2	0	2	0	2	0	1	1	2	0	2	0	2	0
T35	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T36	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T37	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T38	2	0	2	0	2	0	2	0	1	1	2	0	1	1
T39	2	0	2	0	2	0	1	1	1	1	2	0	1	1
T40	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T41	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T42	2	0	2	0	1	1	2	0	2	0	2	0	1	1
T43	2	0	2	0	1	1	2	0	1	1	2	0	1	1
T44	2	0	2	0	n/a	n/a	n/a	n/a	2	0	2	0	1	1
T45	2	0	2	0	2	0	n/a	n/a	1	1	2	0	1	1
T46	2	0	2	0	2	0	2	0	2	0	2	0	2	0
T47	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0
T48	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

FIGURE 8b, sheet 3 of 6

	exon -7 49904		exon -7 49934		exon -7 49994		exon -7 49671		exon -5 83980		exon -4 85938		exon -2 89837		exon -2 89889		exon -2 90090	
	A	G	C	A	A	G	A	T	G	A	G	A	C	T	T	C	T	C
	96	0	96	0	94	0	94	2	52	0	67	27	75	13	92	0	94	0
	1.00	0.00	1.00	0.00	1.00	0.00	0.98	0.02	1.00	0.00	0.70	0.30	0.83	0.17	0.99	0.01	0.99	0.01
B1	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
B2	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
B3	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
B4	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
B5	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
B6	2	0	2	0	2	0	2	0	n/a	n/a	1	1	1	1	2	0	2	0
B7	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
B8	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
B9	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
B10	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B11	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
B12	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
B13	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
B14	2	0	2	0	2	0	2	0	n/a	n/a	0	2	2	0	2	0	2	0
B15	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	n/a	n/a	2	0
B16	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	2	0	2	0
B17	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
B18	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B19	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
B20	2	0	2	0	2	0	2	0	n/a	n/a	0	2	2	0	2	0	2	0
B21	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B22	2	0	2	0	2	0	0	2	2	0	n/a	n/a	2	0	2	0	2	0
B23	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B24	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B25	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B26	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B27	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	1	1
B28	2	0	2	0	2	0	2	0	2	0	0	2	1	1	2	0	2	0
B29	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
B30	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
B31	2	0	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0
B32	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
B33	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	1	2	0	2	0	2	0
B34	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B35	2	0	2	0	2	0	2	0	n/a	n/a	2	0	2	0	2	0	2	0
B36	2	0	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0
B37	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
B38	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
B39	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
B40	2	0	2	0	2	0	2	0	n/a	n/a	1	1	1	1	2	0	2	0
B41	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
B42	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B43	2	0	2	0	2	0	2	0	n/a	n/a	2	0	1	1	2	0	2	0
B44	2	0	2	0	2	0	2	0	n/a	n/a	n/a	n/a	2	0	2	0	2	0
B45	2	0	2	0	2	0	2	0	n/a	n/a	1	1	2	0	2	0	2	0
B46	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B47	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B48	2	0	2	0	2	0	2	0	n/a	n/a	1	1	1	1	1	1	2	0
	92	0	92	0	92	0	90	2	42	0	62	26	80	16	93	1	95	1

FIGURE 8b, sheet 4 of 6

	intron 3 126711		exon 5 130189		intron 7 154138		intron 7 154202		exon 8 154431		exon 9 160052		exon 9 160089		exon 9 160165		exon 9 160376	
	A	G	G	A	G	A	A	G	G	A	A	G	A	G	A	G	C	G
	94	2	95	1	93	3	94	2	61	35	61	35	80	16	88	8	87	9
	1.00	0.00	0.98	0.02	0.97	0.03	0.97	0.03	0.67	0.33	0.60	0.40	0.85	0.15	0.91	0.09	0.90	0.10
B1	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B2	2	0	1	1	2	0	1	1	2	0	1	1	2	0	2	0	1	1
B3	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0
B4	2	0	2	0	1	1	2	0	1	1	1	1	2	0	2	0	2	0
B5	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B6	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0	2	0
B7	2	0	2	0	1	1	2	0	1	1	2	0	1	1	2	0	2	0
B8	2	0	2	0	2	0	2	0	2	0	2	0	1	1	2	0	2	0
B9	2	0	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0
B10	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
B11	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B12	2	0	2	0	2	0	1	1	2	0	1	1	2	0	2	0	2	0
B13	2	0	2	0	2	0	2	0	2	0	2	0	1	1	1	1	1	1
B14	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B15	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
B16	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B17	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B18	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B19	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B20	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
B21	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B22	2	0	2	0	2	0	2	0	2	0	2	0	2	0	0	2	0	2
B23	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B24	2	0	2	0	2	0	2	0	2	0	2	0	2	0	0	2	0	2
B25	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
B26	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B27	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B28	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
B29	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
B30	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B31	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B32	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
B33	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B34	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B35	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B36	2	0	2	0	2	0	2	0	1	1	2	0	1	1	2	0	2	0
B37	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
B38	2	0	2	0	1	1	2	0	1	1	2	0	2	0	1	1	1	1
B39	2	0	2	0	2	0	2	0	2	0	2	0	1	1	1	1	1	1
B40	2	0	2	0	2	0	2	0	1	1	2	0	0	2	2	0	2	0
B41	2	0	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0
B42	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B43	2	0	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0
B44	2	0	1	1	2	0	1	1	2	0	1	1	2	0	2	0	0	2
B45	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0	2	0
B46	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
B47	2	0	2	0	2	0	2	0	2	0	0	2	2	0	2	0	2	0
B48	2	0	2	0	2	0	2	0	1	1	1	1	2	0	2	0	2	0
	96	0	94	2	93	3	93	3	64	32	58	38	82	14	87	9	86	10

FIGURE 8b, sheet 5 of 6

	exon 9 160602		exon 10 303073		exon 10 302972		exon 10 302848		exon 10 302699		exon 10 302681		exon 10 302556	
	G	C	T	C	G	T	A	G	T	C	C	T	A	G
	95	1	94	0	86	6	71	7	83	11	94	0	80	14
	0.99	0.01	1.00	0.00	0.92	0.08	0.93	0.07	0.90	0.10	1.00	0.00	0.83	0.17
B1	2	0	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	2	0
B2	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B3	2	0	2	0	2	0	2	0	1	1	2	0	1	1
B4	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B5	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B6	2	0	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	n/a	n/a
B7	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B8	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B9	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B10	2	0	2	0	1	1	2	0	1	1	2	0	1	1
B11	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B12	2	0	2	0	1	1	2	0	1	1	2	0	1	1
B13	1	1	2	0	2	0	n/a	n/a	2	0	2	0	1	1
B14	2	0	n/a	n/a	n/a	n/a	n/a	n/a	1	1	2	0	1	1
B15	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B16	2	0	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	1	1
B17	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B18	2	0	2	0	2	0	2	0	2	0	2	0	1	1
B19	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B20	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B21	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B22	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B23	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B24	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B25	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B26	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B27	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B28	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B29	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B30	2	0	2	0	1	1	2	0	1	1	2	0	1	1
B31	2	0	2	0	2	0	2	0	1	1	2	0	1	1
B32	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B33	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B34	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B35	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B36	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B37	2	0	n/a	n/a	2	0	n/a	n/a	2	0	2	0	1	1
B38	2	0	n/a	n/a	n/a	n/a	n/a	n/a	2	0	2	0	2	0
B39	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B40	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B41	2	0	2	0	2	0	2	0	2	0	2	0	2	0
B42	2	0	2	0	1	1	2	0	1	1	2	0	1	1
B43	2	0	2	0	1	1	2	0	1	1	2	0	1	1
B44	2	0	2	0	2	0	2	0	2	0	2	0	1	1
B45	2	0	2	0	1	1	2	0	1	1	2	0	1	1
B46	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
B47	2	0	2	0	2	0	1	1	2	0	2	0	2	0
B48	2	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	95	1	74	0	70	6	67	5	77	9	86	0	70	14

FIGURE 8b, sheet 6 of 6

ER2 Exons with SNPs (v3.0)

ER2 exon -7 (AB006589: 1-199, 49552-49750 of SEQ ID NO: 1)

CACGCGGGCTTCATAAAGCTAGATGCCAGTTAACTGTGcgaga  
ggggacgctcctcctcgtaggcgtccacactggagaaggaataaagatgg  
gcgattgctgggaagcctgacagggcggcggcagctgggagtgtggaga  
ggactggcccttgAgttactgagtcgatccgatgaatgctgtcctgtggg  
aggaaccgctcaggttacagtcacccaatatggttctgaaagGTGCGT  
GGTTCAGGTCACTTAGGACTTGACCAGATACCGGGTTTCTTTACAAGCC  
GTTTTGACGGTGGCCTGTTTCAACTACTGGCAGAGCTCATGTAAAAACAG  
ACTTTTAAAAAAAATTTGGGGGCTTTTAGTATTTTTTTTCTTATTCCTATA  
TTCCTGAGGATATTTTATAGTAGTCCACATATGGAATTAGATAAATCTCTT  
TTTTGTTGATTAAACAGTTTATCAAGTATAAATGTACATACCATAAACGTT  
CACCCCAITTTAATGGATTCAATGATTTTTTAGCATATTTACAGAGTGGTGC  
AACC

49671 A/T 3 (C,S) \*

49904 A/G 3 (C,S)

49994 A/G 2

ER2 exon -6 (AB006589: 200-507, 50928-51235 of SEQ ID NO: 1)

GAAATAAGGTGATACTGGAAGGACCAGGTTTTGGGGGTACAATC  
ATAAGTTTGGCTTTAAATGTTTTTAAATACCTTGCCCTTTAGacatccaa  
gtggagatattggcatttaaatcatgagattggatgagatcccacccaaag  
gaacaggtttaggTggagacaaccaaataccgatgcctaggacactgcag  
tgttagaattcaaggagatgagaaggaaacagagggaagattgaaaaag  
aagagtcagtggttatgaggaaccccaagagcatgctgccttaciaa  
gacaggtgaaaaatgttctgtgaaagaaagagtaattaaactgttaaat  
gttacagactgatcaaataaaatgaagactgagaatggcctgtttgttaag  
GTAATAAAAAATACATAAAAAATCTTATGATAGAAAAATTTATACATAAAAGTT  
AGTAAGGAAACAGGTGTTACTCCTTTTTGTAGAAAGTGTAATAATTTTACAA  
CCATTTTGAAGGCAGTTTGATATTTATCTACAACTTAAAAATTGTGCTTCC  
ATTGATAATTTACCTGT

ER2 exon -5 (AB006589: 508-691, 83858-84041 of SEQ ID NO: 1)

GGCACATAGTAAGCAAAATCAATAAATGCTGAGTGAATGAAATATTTAAATGA  
ATAAAAAAGGAAAATTTTTGTGCTGCTATTGGAAAATTAGCTCTCTATATATT  
TCAACATGTTACACATATACAAATGATCTAAAAAACTTGTCTTACTCTTTCC  
TATCCACTAGaggggagacatcaacctgtgtggaaaaagaatgatcactta  
aagctcttagaaaattctgaaccaactctctagcaggtgatccttgttaga  
attgagcccttaacgctatccaggactggagGttgaagggacgatagag  
ggagcagggaggaGAATGCACATGGATTAAAGGAGCGAGAAACACAGGTGAAC  
TTCAGCTTTTTTGTCTAAACAGTCAGACAAAATACTGACCCCTGACTCAGTGA  
TGTGCTAGTAAACCAGCTCTTTTAAAAAAAAGCCCTAGATTGCT  
GATTTGTATGTAATGTTTATGAATTTTTCAGTAGAGAAAAAGACAATTTCA  
AACTGAGCCATGACCCCAAAAACAAGAGAAACAGCCCAAGAAAGTGTTCACCTTC  
TATCAGTGGCCCTGGGTT

83980 G/A 3 (S)



ER2 exon -4 (AB006589: 692-903, 85942-86154 of SEQ ID NO: 1)

GTCTGAAGGCACACAACTAGGAAGTGTGTTGTGCT  
GAAAAACCCACCTAGGCCCAAGCCTTGGAACCTCCAAGCCTGGGTTCATC  
CTTGCACTGGGCAATTCTGATCTATGTGCGCTAGTTTCCCTGTGTCTCT  
GTTCTCTCCGTAGaaatcctgggctctctctccagccacaaggttagg  
ttgaaaaacagagcagatggaggtagttgtagcctacaggtgcccctgaa  
tgaagcttccacagtgtctaaagtgaagaacgagggaactccaagggaaagg  
attcaaggctgggcccattgcacctgtgttaattcagaagagacccacagagg  
agatcagcgccctctaattagccctgtgtaaggagctctgaggagttactgt  
AACTCTCAGAAAGAAACCAACATGCGGGAACGTGACTTCTTACCTTCT  
GAAAGTCCACAAAAATTCCTGATTGCCACCAATTAAATTGTC

85938 G/A 2, 3 (N, C, I, A)

ER2 exon -3 (AB006589: 904-997, 89037-89130 of SEQ ID NO: 1)

GGGGCAGTGGACAGGACAAAAAGTTATTTTACCTGTTGT  
TTACAAATAGCAAAAGATCAAGACTGAACACACATGAGTGTGATTAGAAAG  
AGTTGGCTGCAGGTGCTGTTGCTCAGGTGTTTCATTTAAACTGCAGGTC  
AGAGCAACCTTGTCTCATGGTCTGTCGCCAGGTAATCAGGTTGGGTCG  
TCTTGCTGCTTATGTTCTTGTACCTCTGAGGGCCCAAGTCCAAACGAG  
ATCAATAAAGAAATAAGTTACATAAAATATGCTCATAGGTGTCATTCCCTAG  
ACAAGAAAATTGACAAACATTTTCATTCAACAGTatctgggctctacaggaca  
gacatgcctccattatgcaacaaataagaacacagcatctcatgacagtgg  
agaaaacatgggatgtcaggtaggTAGGTAAAGTTGGGTGGAAACTTTC  
ACCTACCAAAATGCACATGGGTGACTTTTATAAAATAAAATGTTAGCTCTCT  
GAGCCTCAGTTTCCCT

ER2 exon -2 (AB006589: 998-1185, 89803-89988 of SEQ ID NO: 1)

TTCCCTCCTTTCCCTCCACTTTTCCCTA  
TTAGCTTTTGTCTTCTTGCCCTTTTACAGggttttgttttgcctcttggtta  
gtttctttcctaCggaaaaattctccctctgatctttccaagtcaaaaggt  
tcagcaaacatttgtgaacgctggattgtgctaggtgggtgttatgga  
ccatggagaatgctagagatgtaagacatgcgctgtccaatcgcagcgca  
ggttgtgtgacagGTAAGATGAGGCTGTGGGGAGCCAAATGTGCACGT  
TCCACTGGGCTAATGTGCTCTTCACTTATTAGGCTCTTGGCTTTGGGA  
TGGTAAAGACTTTTGCTAGACAGAGAGGGGTGGGTGAGAAATGAGGAA

89837 C/T 2, 3 (C, I, A, S)

90090 T/C 2

9

ER2 exon -1 (931111-93488 of SEQ ID NO: 1)  
TGCATATTCTCAGGCCCTACATCCAGACCTCTTAAATCTGAGAC  
TGGGGTGGGGGAGGCCCATCTGTGCGCCACTATCCTTGTGGGTGGACC  
AGGAGTCGGTTCGAGGTGCTCCCACTTAGAGGTACGCGCGGCGTTCGGG  
CGTTCTGAGACCGTGGGCTCCCTGGCTCGGTCACTGTTGGGCTCAGGCAC  
TACTCCCCCTTACCCCTCCTCTCGGTCTTTAAAGGAAGAGGGGCTTATC  
GTTAAGTCGCTTGATCTTTTCAGTttctccagctgctggctttttgga  
caccactccccgccaggagcagttgcaagcgcggaggtcgcgagaaa  
taactgcctcttgaaacttgagggcgaagagcagcgcgcgagcgtggg  
ccgggaggagaccaccgagctgcacgggctctggggctgcgggagcagg  
gctggcccgagcctgagctgcaggaggtgcgctcgtcttcctcaaca  
ggtggcggcggggcgcgcgggagacccccctaatgcgggaaaaagca  
cgtgtccgcatttagaagaaggcaagcgcgggtgtgtttatctgcaagGTA  
AGCCCCCTTCGCTCGAGGTGTGGTTTAAATTGTCTCATTTTGTGTGAAAT  
CCTGGGTGAGAAACCACTCGTGTGTGAGAACAAATAAAGACCAAAAAACG  
ATCACAAAACCAACTGTCTCTGAAAGCTACTGGAAAGTTGGAAAAATGCA

ER2 exon 1 (104446-104897 of SEQ ID NO: 1) CTCACATT  
CCCACCTCTCTGAGGTTAATAATTTTCATGTATATTTTTCAGGATGTATTT  
GTAATCTCATACAAACGTATGTATTTTAAATGAAAAATATTAAATTTT  
CATAGTTAACAGCTGTAGCTCTAACTTGGCAATATCTTCTGTGTTTCTTTT  
ACAGccattataacttgcccacgaatctttgagaacattataatgaccttt  
gtgcctctcttgcaagggtgtttctcagctgttatctcaagacatggat  
ataaaaaactcaccatctagccttaattctccttctcctacaaactgcag  
tcaatccatcttaccttgagcacggctccatatacataccttctcct  
atgtagacagccaccatgaatatccagccatgacattctatagccctgct  
gtgatgaattacagcatcccagcaatgtcactaaactggaagtgggcc  
tggtcggcagaccacaagcccaaatgtgtgtggccaacacctgggcacc  
ttctcctttagtgggccatgccagttatcacatctgtatcgggaacct  
caaaagagtcctgggtggaagcaagatcgtagaacacaccttacctgt  
aaacagGTAAGTCCAGTCTTCATTTCTGAATTATAGTTGTAGCCATTCT  
CAATCACTTTATGTTGAGTGAGAGGAAATAATATGTTAGACAAGGTC  
TTTATTGTATTAAATTACATAGTTTACTTACAGCACCCCAAAACACAGGATG

ER2 exon 2 (107368-107540 of SEQ ID NO: 1)  
TTTTTCCTAGAAAGCCCTTCCTTTCCCTTTTATGCTCTGTT  
CAATGGATATTTTCTTGCTCCCTAGagagacactgaaaaaggaaggttag  
t999aacggttgccagccctgttactggtccagggttcaaaagagggatg  
ctcaacttctgcgtgtctgcagcgtattacgcattcgggatatcactatgga  
gtctggtcgtgtaaggatgtaaggccctttttaaagaagcattcaagG  
TACAAGAGAAATTGTTAACTGCTTCTTTAGTTTCCCTACTTTTGTGATTTCAAA  
CAATTTTGCAGAGATGACTTTGGCAGAAAATGTCACTACTGGCCCTGTTTGGC  
ACACAAAAGTATTTTGATGAGCAGTTTCAGAGGATCATGTGTGTTTGGAAAGTG  
GGTTG

ER2 exon 3 (118610-118726 of SEQ ID NO: 1)  
GTAGCTTGACTTTGGCTTTGTACCTGTACTGGT  
CATTAAAGAAGATGCCCTATCTCTCAGCTGGAAAGTTTATCAGTGTG  
TTGACCAGGAAGAGATTTAACTAAGAGATCATAGCAATAATCTTTTTTTC  
CCTCCCACCTCTGTATAGacataatgattatattgtccagctacaaat  
cagtgtacaatcgataaaaccggcgcaagagctgccaggcctgccgact  
tcggaagtgtacgaagtgggaatggtgaagtgtgGTGAGTGTCTTGCTTC  
CCTTCTTATTGAATATGGCCCTTGTCTAAAAAGCCCTGCTCCTCTGAGGAACT  
GGGACACAGGTAGCCGGGAAAAAGAGAAGATTTGGGACATAGTAATTAAGTA  
TTTGCGTGTGTGCACATTTGGAGGGGCATTTGACTTTATCCACAGATAACTGC  
AGAGACACAGAGCTGGGGTGTAATGGGAAACAGATTTATGGGAGGCAG

ER2 exon 4 (126774-127073 of SEQ ID NO: 1)  
CTGGAATGGAGACCTAAAAAGTTTCTGAAAAAGTTATGTCGTTGGT  
TTTGCTAGTACGGTCACGACCATAGTAATCTTTTGGTACGTGCCCCACAGG  
CTCCAGAAAAATAAAGTCAAGCTGCTTTTGTGCTGTGAGTGGGTTTACCCCT  
GGCAATTGAAATGACTCTGCTTTTCTCTTTCAGgctcccgagagagagat  
gtgggtaccgcttgtgggagacagagaagtgcgcgacgagcagctgcac  
tgtccgggcaaggcaagagaagtggcgccacgcgcgcgcgagtgcgga  
gctgctgctggacgctgagcccgagcagctagtgtcacccctcctgg  
aggctgagccgccccatgtctgatacagccgccccagtgcccttcacc  
gagggctccatgatgtctcctgaccaagttggccgacaaaggagttggt  
acacatgatcagctgggccaagaagatccccGTAGGGCTTCTTGGCTAT  
CAGTTTCCATGTACTGTAGAAAAGGCCGCCGCTAATATTTAAGGGGCA  
AGAGTACAAAGTAGAGTCCATGAGCTGTGCTAGATATTTAACAGGTCC  
TCAGCTGGATTTGTAACTTTTAAAGTGCAATATGTTCCCTTCTCTCTTT  
GGCATACCTACCTTCAACAGGCCGTGT

126711 A/G 2

ER2 exon 5 (130158-130296 of SEQ ID NO: 1)  
GGTCGTAGTGTGACAAACTCTAAATGAAGTATA  
TTTGTCTCTAGAAAGGTCACAGCTGGAAACTAAAGTTGCGCAGCTTAAAC  
TTCAAAAGTTTCTTCCTTTAAATGAGCAGTTAATCACTATATAAAATATC  
AACTCCCTAAATGGTTTGTGTTTCTTAGTGTTTAAACACTTGCCATTCTG  
TCTTACACACACAGGAGCTGAGGAGGAGGGGTGGGGGTGCTCAACCGC  
CTCTTGCTTTCCCAAGctttgtggagctcagcctgttcgaccaagtGcg  
gctcttgagagctgttgatggaggtgtaatgatggggctgatgtggc  
gctcaattgaccacccggcaagctcatcttgcctccagatcttgtctcg  
gacagGTGAGAAAAAATACATGTGTTCTCTCTGACTGTGTTGAGTAA  
GGTGCTTAGTGAGTGGGAACAAAAGTCCTGGGTGCTGCAATTAAAAATCTCA  
CACTTGACGGGCAGAGGATGATAGCATCAI

130189 G/A 1, 2, 3 (C), 4 (As), public

ER2 exon 6 (137853-137986 of SEQ ID NO: 1)  
TTTCATATT  
GCTGGGTGTGGTCTCATTAACACCCCTGTTGTAGTTAAAAATGATATTATCA  
GATGAACATGTTACAAGATGAACCTTGAGATTAAAAATAAACATTCCTTT  
ATTGTTTTTTTGTATGGTTCTCTGAAGCTATGTCTCTTAAATTTCCAAACG  
AACTTTTGTAGgatatgaggggaaatgcgtagaaggaaattctggaaatctt  
tgacatgctcctggcaactacttcaagggttcgagagttaaaaactccaac  
acaaagaatatctgtgtcaaggccatgatcctgctcaattccaGTAAG  
TAATCACACAGCTGGGCCATGTTTATCGGGGAGAGATGCTGTTTCTACA  
ACTAGCGTGATATTAAAGAATAAGTTGAACTTCTATTTTATTTGAAAGGG  
TAAATGGTTTCCCTTTTGGACTTCGTTTTTATTTTGTAGAGCATTTAAAC  
TGTAGGTAACTTTTGGTAACTTGGACATAAATTAATCAATTAAGTGAATGA  
CTGGCAATCA

ER2 exon 7 (152379-152559 of SEQ ID NO: 1)  
CAGGCTTCTCTTCTAGCT  
CTGTGACGGGGCTGGCTCTCAGGGAAGATCCCTCGGGGAGGTAAGACCA  
TGCTTATAAGCTCCTGCCCACACATGCAGCTGTCAAAGCAACCCAGATCAC  
CTCGGAGCAGGCGCACGGAACAGCTGAGCACACGACTTCTGCTCCTTTGTC  
TCAGAGCAATGACTTCTGGCTTTTATTTCTTTGTCCAGgtatgtacctct  
ggtcacagcagccaggatgctgacagcagccggaagctggctcaactgc  
tgaacgcctgaccgatgctttggtttgggtgatgccaagagcggcatc  
tcctccagcagcaatccatgcgcctggctaacctcctgatgctcctgtc  
ccacgtcaggcatgcgagGTACGCGCCCTAAGGAGCTGCTGCTTGGGC  
TTGGGATGGGATTATGTGCTCCACGGAGGGTGAAGTGATTTGGGAAAAAGT  
GTCTGCAAGTTAAGGAAAAATGAATGCCTGAAAAGGGAATGGGGAATTTGTC  
AGTT

152603 T/C 4 (As)

ER2 exon 8 (154206-154500 of SEQ ID NO: 1)  
GTGGGACACAGAGGCTGACAAAGACATCGTCCTTGCCCTTGAGCCTAAA  
TTATCAGGGGAGCTGATGACAGCCATGGATAAATGGGCTGGGGGAA  
GAGTGGGTTTAGGGGTGGGTAGACTGGCTCTGAGCAAAAGAGAGCCGGGG  
AAGGCTTCGGGGTTCCCTGTGGCTCGGAGGAGGAATCTCAGCACCT  
TTTTGTCCCATAGTaaacaaggcatggaacatctgtcaacatgaagtg  
caaaaatgtgtcccagtgatgacctgctgtgagatgctgaatgccc  
acgtgcttcgcgggtgcaagtccctccatcacgggtccgagtcagcccg  
gcagaggacagtaaaagcaaaagaggggtcccaagaaccacagctcagtg  
AcgcctggccctgaggtgaactggccacagaggtcacagctgaagcGT  
GAACTCCAGTGTGTGAGGAGCCTGGGCTTCATCTTTCTGTGTGTGTGCC  
C

154138 G/A 2

154202 A/G 2,3 (C,A,S),4 (As)

154431 G/A 1,2,3 (N,I,A),4 (all)  
3<sup>rd</sup> alt. end missing (63658)

ER2 exon 9 (159915-160827 of SEQ ID NO: 1)  
ACTGAGCTTTGAGTGAAGAAGCTGCAGTGGCTCCCTGGAGATGGGGAG  
CAAACAGCTTAAAGGCCCTTATCCTGAGGAAGAGACAAAATTGACATG  
CACAAATTAAGCTTTGAAATGCAGACCACACTTCCTTTCACTGCAACTT  
TGACTTGTCCTCCGATCTCTACTTAAGggcagaaaaaggcctctcaaacact  
cacctcatttggaaatgaagatggagactcttttgctgaagcaacgatgg  
agcagtgacccctctaataactcgggtggcctaaagaaaaatcttgggtaa  
catttcacttcaGtttccctctgggatcattgtaatcccatgaaaaaat  
AattttaaagaaagagttaaaatcTTtgaagttagttatgtggttaaaa  
accacctctcttctattatcaatccAacaaatttgataaactgtaaacgct  
aaagtgaagacggattctctcagatgggtcctcttaactgcccagggtt  
gcagatgtctcaccatgaggggcaccaatgtagaagctgaggtctcat  
ctactgatgagcttcactgggttccctgaggttctgtcttggcagaga  
aggggaggagggtgactgggatgtgtggtcagctgtgCctgccaacagat  
gcaggttaggaactgtgtcagtatcttccaataaagaaaggggaaatgcc  
gatgcctatcctcttgtttaggtagaaagtataatgctactggacttaa  
atgggcaacaaggggttgcctgttcatcttgccatggagagggctggga  
atccaggtgcggtgggtcacactgtaatcccaacactttgggagggcga  
ggtgggcagatcaGttgaggtcaggagtttgaaaccacgcctggccaacat  
ggcgaacccctgtctctataaaaaataataatagccaggcatggtgg  
tgtgtgcttgaatcccagctactcaggagggtgagggcatgagaaatggct  
tgaacctggaaggcaagggttcagtgagccgagatggggccaccgcact  
ccagcctgggtgactgacagagtgagactctgtcaAAAAAAGAGTAGAG  
TAAACTGGGTATAAGATCCTTCCCTTTGCGTCCACCTCTCATGTCCATGCT  
GCCTTTGCCATTCCCTACA

160052 G/A 1,2,3 (N,I,A,S),4 (all);  
160089 A/G 1,2,3 (N,I,A,S)  
160165 A/G 1,2,3 (A),4 (all)

160376 C/G 1,2,3 (N,C,A)

160602 G/C 2

ER2 exon 10 (302474-303300 of assembled ER2 BAC,  
302474-303300 of SEQ ID NO: 1)  
GACAGctctctctcactctcttgagattgtttatgtgagggagccag  
ctgccatggtgtgaggcagactcctggaggagccac**A**tgtctgtaahta  
gaagcagatcttttgagggcctgtcaacagccacgggaatgagcttggaaag  
cagatcccacctcctccctcacacaagtcgagccttcagatgagcctgca  
gcTttgtcgacaccttgacTgcattctcatgagagaccttgagccagag  
atacttagctaagccatgcccattggactcctgacccacagaaactgtgat  
aataagttgtgtgtttcaagctgctaacttatggagtaatatgttacaca  
aaaatagctaataatatagctcaaaactgg**A**agcaaccccaaatatctatta  
actggtagataaaacaaactactcatttccaaacttatttccaaaactgga  
acactacttggcaatcaataataactatgcattaaagttaacaaactg  
gat**G**aatctcaaaaggcattatgttaagtgaacaaagtgagccacgtaaga  
ctacatactgtttgattccctctatatgatattctagaaaaagggcaaaact  
atagtaaataggaaacagtgagtgatcacctaggggttgaagacaggtgaaa  
ggggattgactgcaaaagaggcaggaggaacgtctctgggagatggagatg  
ttccttataattgatggcgggtggttacacaaactgcacttttatcaaaa  
cttacctaactgctacttaaaatagggtattaatattttactgtatgt  
aaattatacctcaataaatttgatttaaaaaaCAGGCCGGGTGTGGTGGC  
TCACGCCCTGTACTCCAGCACCTTTGGGAGGTCGAGGTGGGCAGATCAGCT  
GAGGTCAGGAGTTCAAGACACAGCCTTGGCCAAACATGGTGAAATCCCTGTCT  
CTACTAAAAAATACAAAAATAAGGTCAGCGTGGTTGGCACACGCTGTAAATC  
TCAGCTACTGGGGAAGCTGAGGCAGAAG

302556 A/G 2,3 (all)

302671 C/T 3 (A); 302689 T/C 2,3 (all)

302848 A/G 2,3 (N)

302972 A/G 2,3 (N, I, A, S)

\* Observed in: 1= cDNA, 2= Liverpool clinical, 3= Coriell (N, North Eur.; C, Chinese;  
A, Afric-Amer; I, Indo-Pak; S, SW Native Amer), 4= CEPH (Ca, Caucasian; As, Asian;  
Af, Afric-Amer)

(bold = SNP position, underlined = primer sequences, lowercase = exon, bold/italics = alternative endings to exons 8 and 9 seen in different splice variants.)